

TRANSITION COMPLIANCE AND EVIDENCE-BASED PRACTICES IN PUBLIC  
CYBER CHARTER SCHOOLS: EFFECTS OF STUDENT DEMOGRAPHICS

By

CARRIE J. SPITLER

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To my Mom and Dad

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## LIST OF TERMS

Cyber School	“An online learning program in which students enroll and earn credit towards academic advancement (or graduation) based on successful completion of the courses (or other designated learning opportunities) provided by the school” (Watson, Winograd, & Kalmon, 2004, p. 12).
Disability	A child with a disability means a child evaluated in accordance with Sec. Sec. 300.304 through 300.311 as having mental retardation, a hearing impairment (including deafness), a speech or language impairment, a visual impairment (including blindness), a serious emotional disturbance (referred to in this part as "emotional disturbance"), an orthopedic impairment, autism, traumatic brain injury, an other health impairment, a specific learning disability, deaf-blindness, or multiple disabilities, and who, by reason thereof, needs special education and related services (IDEA, 2004, 34 CFR §300.8(a)(1)).
FAPE	FAPE means special education and related services that: (a) are provided at public expense, under public supervision and direction, and without charge; (b) meet the standards of the State educational agency, including the requirements of IDEA; (c) include appropriate preschool, elementary school, or secondary school education in the State involved; and (d) are provided in conformity with an IEP that meets the requirements of §§ 300.320 through 300.324 (IDEA, 2004, 34 CFR §300.17).
IEP	The term individualized education plan (IEP) means a written statement for each child with a disability that is developed, reviewed, and revised in a meeting in accordance with §§ 300.320 through 300.324 (IDEA, 2004, 20 U.S.C. 1414(d)(1)(A) and (d)(6)).
Indicator 13	Indicator 13 refers to the “percent of youth aged 16 and above with an IEP that includes coordinated, measurable, annual IEP goals and transition services that will reasonably enable the student to meet the post-secondary goals” (IDEA, 2004, 20 U.S.C. 1416(a)(3)(B)).
LEA	A local education agency (LEA) is a public board of education or other public authority legally constituted within a State for either administrative control or direction of, or to perform a service function for, public elementary schools or secondary schools in a city, county, township, school district, or other political subdivision of a State, or for a combination of school districts or counties that is recognized in a State as an administrative agency for its public

elementary schools or secondary schools (U.S. Department of Education, n.d.).

Transition Transition is a “change in status from behaving primarily as a student to assuming emergent adult roles in the community. These roles include employment, participating in post-secondary education, maintaining a home, becoming appropriately involved in the community, and experiencing satisfactory personal and social relationships” (Halpern, 1994, p. 117).

Transition Services Transition services are “a coordinated set of activities for a child with a disability that—(A) is designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child’s movement from school to post-school activities, including post-secondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation; (B) is based on the individual child’s needs, taking into account the child’s strengths, preferences, and interests; and (C) includes instruction, related services, community experiences, the development of employment and other post-school adult living objectives, and when appropriate, acquisition of daily living skills and functional vocational evaluation” (IDEA, 2004, 20 U.S.C. 1401(3) – 1401(30)).

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As the number of students with disabilities engaging in online learning continues to increase, it is imperative that the fields of special education and distance education anticipate this growth and work together to establish quality special education programs. For students with disabilities, this must involve transition. Therefore, the purposes of this study were to determine (a) the characteristics of transition planning practices in public cyber charter schools by exploring the extent that the transition components of the IEPs reflected compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based practices in transition; (b) the impact of individual demographic characteristics (i.e., disability category, racial/ethnic background, gender, and grade level) on the transition planning practices in public cyber charter schools; and (c) the relationship between compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based practices in transition. The sample for the study included 236 IEPs of students with disabilities between 14 and 21 years of age, who had attended at a public cyber charter school in Pennsylvania during the 2012-2013 school year. Several types of quantitative analyses were employed including, (a) descriptive statistics, (b) multiple logistic regression, and (c) Pearson's product-moment

correlation. The overall level of compliance as evidenced in the IEPs was 16.01 ( $SD = 3.21$ ). The range of possible scores was 0-25, with 25 indicating that all of the components were 100% compliant. The overall level of evidence-based practices as evidenced in the IEPs was 7.06 ( $SD = 1.50$ ). The range of possible scores was 0-11, with 11 indicating that there was evidence of all of the evidence-based practices in the IEPs. A student's disability category, racial/ethnic background, gender, and grade level were found to be influencing factors that increased or decreased the probability of an IEP being compliant or incorporating evidence-based practices. A statistically significant ( $**p < 0.01$ ) moderate correlation of  $r = 0.306$  was found between the compliance and evidence-based practices composite scores, indicating that as the level of compliance increased, so did the level of incorporation of evidence-based practices.

## CHAPTER 1 INTRODUCTION

The purpose of this chapter is to provide a brief overview of the literature and rationale for the need to examine transition planning practices in public cyber charter schools. To accomplish this, the chapter is divided into five main sections. First, the literature overview will highlight (a) federal legislation related to transition, (b) compliance with the transition mandates of IDEA 2004, (c) incorporation of evidence-based practices, (d) post-school outcomes for students with disabilities, and (e) online learning. Next, the problem statement is addressed. In sections three and four the significance and the purpose of the study are detailed. This chapter concludes with the delimitations and limitations of the study.

### **Overview**

#### **Goals of Education**

The transition from school to adult life is a rite of passage experienced by all individuals no matter who they are or where they come from. For some, moving from school into the next phase of life presents endless possibilities. For others, post-school options might be more limited. Regardless of the chosen path, transitioning from youth to adulthood, and assuming the accompanying responsibilities, is both an exhilarating and uncertain time. Yet, through education, all students can be prepared for this stage of life.

Phelps and Hanley-Maxwell (1997) noted that researchers in the field of education from both general and special education have attempted to define the goals of education. One goal is to ensure learning by all students. Yet, academic achievement is not the most accurate measure of whether or not an education has been

effective. The primary goal of education for all students is successful integration into the adult world. Therefore, to assure that the knowledge and skills required for success beyond school are incorporated into the curriculum, they must also be emphasized in the federal legislation.

### **Federal Legislative Initiatives Related to Transition**

The earliest establishment of cooperative programs between special education and vocational rehabilitation dates back to the 1950s (Johnson, 2012). Later, during the 1960s, and continuing into the 1980s, such programs were characterized by a focus on vocational education and career development, and served as the precursors to more contemporary transition services (Morningstar, Bassett, Kochhar-Bryant, Cashman, & Wehmeyer, 2012). As the career education movement gained momentum as a federal priority, additional legislation was enacted in order to improve the existing programs and to provide funding to support special populations, including students with disabilities.

### **EHA**

The first reference of transition services for students with disabilities appeared when the Education for All Handicapped Children Act (EHA) was amended in 1983 (Johnson, 2012). Section 626 of the Amendments to the Act, termed “Secondary Education and Transitional Services for Handicapped Youth,” authorized funding to strengthen special education programs with the ultimate goal of transition from school to employment, independent adult living, and/or post-secondary education. In 1986, Section 626 of the Amendments to the Act was revised once more to enhance the services already in place.

## **IDEA 1990**

In 1990, the title of the Act was changed from EHA to the Individuals with Disabilities Education Act (IDEA). One goal of IDEA was to promote effective transition planning practices (Johnson, 2012). IDEA explicitly defined transition services for students with disabilities with the most prescriptive components of the regulations associated with four main service requirements including (a) parent notification, (b) student and agency participation in IEP meetings, (c) content of the IEP, and (d) agency responsibility (Johnson; Kohler & Field, 2003). As a result of these mandates, transition planning practices and services became requisite stipulations of special education services for students between 14 and 21 years of age (Morningstar et al., 2012).

## **Goals 2000 and STWOA**

Concomitantly, secondary education for students without disabilities was influenced by federal legislation (Morningstar et al., 2012). Two legislative pieces that were part of a broader national initiative for comprehensive educational reform in 1994 included (a) The Goals 2000: Educate America Act of 1993 (Goals 2000), and (b) The School-to-Work Opportunities Act of 1994 (STWOA) (Phelps & Hanley-Maxwell, 1997). Goals 2000 outlined eight broad national education goals that acted as the overarching framework under which other efforts (e.g., STWOA) could be situated (Phelps & Hanley-Maxwell). STWOA prepared funding for states to develop programs that would help improve the work-readiness skills of students leaving school (Feller, 2003; Phelps & Hanley-Maxwell). The law was designed to allow schools to be able to structure programs so that goals outlined in Goals 2000 related to academic competencies and the knowledge and skills needed to compete in a global economy could be met—that is, it strengthened the connection between school-based learning and the real-world

context of work (Morningstar et al.). STWOA summarized the activities that school-to-work programs should include.

### **IDEA 1997 and NCLB**

In the late 1990s, federal legislation initiatives expanded from a singular focus on career preparation to include increasing academic achievement and accountability for all students (Kochhar-Bryant & Vreeburg-Izzo, 2006; Morningstar et al., 2012). For students with disabilities, most notable in the 1997 reauthorization of IDEA was the broadening of transition service requirements to ensure that students with disabilities were given increased access to the general curriculum, as well as state and local standardized assessments (Johnson, 2012). To further the accountability movement, the No Child Left Behind Act (NCLB, 2002) was endorsed as a means for closing the achievement gap between various demographic subgroups of students, including students with disabilities. The NCLB mandates have called for an increase in academic rigor by ensuring that students are proficient in core academic classes, and therefore, are prepared to achieve their post-school goals (Guy, Sitlington, Larsen, & Frank, 2009; NCLB). Central to NCLB is the provision that valid and reliable data collection will allow for states, districts, and schools to be compared objectively with each other in order to ensure that all students are performing at the highest levels. As a result, the performance of students, including those with disabilities, on standards-based tests has become a factor that contributes to the accountability ratings of school districts and schools. Because schools must meet state standards for Adequate Yearly Progress (AYP) in relation to student achievement, school districts and schools remain under tremendous pressure.

### **IDEA 2004 and Indicator 13**

IDEA was reauthorized again in 2004, and was aligned with NCLB (2002). IDEA 2004, Section 616(b) requires that each state develop a six-year performance plan to measure its work towards federally identified indicators of compliance and performance, designed to improve the education of students with disabilities. The purpose of a State Performance Plan (SPP) is to evaluate state efforts toward implementing the requirements and purposes of IDEA. To align with IDEA 2004 and to further strengthen the service requirements that support the successful transition from school to post-school life (Johnson, 2012), the U.S. Department of Education Office of Special Education Programs (OSEP) identified five monitoring priorities within the SPP. Effective Transition is one of the priorities. Within this priority, there are three associated indicators. The present study is affiliated with only one, Indicator 13. Specifically, Indicator 13 refers to the “percent of youth aged 16 and above with an IEP that includes coordinated, measurable, annual IEP goals and transition services that will reasonably enable the student to meet the post-secondary goals” (IDEA, 2004, 20 U.S.C. 1416(a)(3)(B)). The established target for Indicator 13 is full compliance. States and school districts collect and report data on Indicator 13 during specified monitoring cycles. To ease the data collection process the National Secondary Transition Technical Assistance Center (NSTTAC, 2012) has developed a checklist. However, additional data related to compliance with the transition mandates of IDEA 2004 cannot be collected using the checklist, nor are these data required to be reported in a disaggregated manner. Therefore, full compliance cannot be measured without more thorough data collection and analysis.

## **Compliance in Transition Planning Practices**

Investigations of the extent to which transition components of IEPs reflect compliance with federal legislation began with the passage of IDEA 1990, and have continued throughout each subsequent reauthorization. For example, Lawson and Everson (1994) examined the format and content statements of transition services for students who were deaf-blind. The results indicated that the IEP team members responsible for developing the transition plans did not understand the transition component requirements of IDEA 1990. As a result, the statements of transition services were found to have been unsatisfactory. In their evaluation of transition components of IEPs with IDEA 1997, Tillmann and Ford (2001) determined that the level of compliance on individual items ranged from 50% to 100%. It was concluded, however, that none of the IEPs were 100% compliant.

Powers et al. (2005) extended their analysis of compliance with IDEA 1997 to include student demographic characteristics (i.e., gender, ethnicity, and disability). Their findings suggested that gender was not a significant determinant of plan quality; however, ethnicity and disability were related with variations in the transition planning process. Landmark and Zhang (2012) is the only study that has examined the extent to which transition components of IEPs were compliant with IDEA 2004 and the effect of disability and ethnicity on compliance. In general, low to moderate levels of compliance were determined. Similar to Powers et al., ethnicity and disability were found to impact the probability that an IEP was compliant.

## **Evidence-Based Practices in Transition**

In addition to the federal mandate to include transition services in the IEP, funding for research to identify effective practices in the area of special education

transition was allocated (Landmark, Ju, & Zhang, 2010). However, because most of the research that identified “best” practices lacked empirical evidence to validate their status as effective (Cobb & Alwell, 2009; Peters & Heron, 1993), Kohler (1993) evaluated the research to determine whether the practices empirically were substantiated or implied. The results indicated that only nine practices empirically were substantiated. Kohler (1996) utilized these findings in order to create the Taxonomy for Transition Planning.

Landmark et al. (2010) updated Kohler’s review to include more recently published literature and to determine if other practices have been substantiated. They revised and added practices to the list identified by Kohler (1993) as new practices emerged. This study also sought to update the literature. Ultimately, the resulting categories, from most-to-least substantiated practices include: (a) paid or unpaid work experience, (b) employment preparation program participation, (c) general education inclusion, (d) parent/family involvement (e) social skills training, (f) daily living training, (g) self-determination training, and (h) community/agency collaboration.

More recently, as federal legislation has been amended to require “the use of scientifically based instructional practices, to the maximum extent possible” (IDEA, 2004, 20 U.S.C. § 1400 *et seq.*), the purpose of special education research has changed to include more rigorous measures. Three systematic reviews of the literature related to aspects of transition planning practices have been carried out using the quality indicators and guidelines for determining the efficacy of practices to identify studies. Therefore, the results from the reviews of Cobb and Alwell (2009); Test, Fowler, et al. (2009); and Test, Mazzotti, et al. (2009) were added to ensure a comprehensive review (i.e., descriptive and empirical evidence).

Four studies (Blankenship, 2004; Grigal et al., 1997; Landmark & Zhang, 2012; Powers et al., 2005) have examined compliance in transition planning practices and incorporation of evidence-based practices in transition planning documents (Greene, 2003). Overall, results have indicated a low number of practices included in the transition documents of IEPs. For example, Landmark & Zhang found that only five of eight practices were included consistently in transition plans. In addition, they identified a moderate correlation between the overall level of compliance and overall level of best practices.

Effective transition planning practices include the development of an IEP that addresses the incorporation of evidence-based practices as determined appropriate by the IEP team. Given the current legislative focus on accountability, it is imperative that educators take advantage of the time they have with students with disabilities by incorporating evidence-based practices into all education activities and programs (Landmark et al., 2010). Students with disabilities need exposure to practices that will help them to transition successfully from school to post-school life (Guy et al., 2009). Unfortunately, the research findings have indicated that evidence-based practices have not been implemented widely, and as a result, that the majority of students exiting high school remain unprepared and unsuccessful at achieving positive post-school outcomes.

### **Post-school Outcomes of Students with Disabilities**

Post-school follow-up and follow-along studies conducted over the past several decades have provided substantial documentation concerning the poorer post-school outcomes that individuals with disabilities have experienced upon exiting high school (Blackorby & Wagner, 1996; Halpern, 1985; NLTS2, 2005). Long-term data provide

information on post-school outcomes for students with disabilities. The National Longitudinal Transition Study of Special Education Students (NLTS) and The National Longitudinal Transition Study-2 (NLTS2) provide comprehensive data depicting the unique experiences of young adults with disabilities. For the most recent study, NLTS2, educational and post-school performance outcome data were collected and analyzed over a period of 8 years, beginning in 2001 and ending in 2009. Findings from the study generalize to youth with disabilities nationally and to youth in each of the federal special education disability categories (Newman et al., 2011).

Evidence has shown that students with disabilities are falling short of achieving the expected outcomes laid out in Goals 2000, which were written for all students, regardless of disability status (Phelps & Hanley-Maxwell, 1997). Phelps and Hanley-Maxwell affirm that preferred outcomes for all students should be tailored to meet the needs of students with disabilities. They point out that the specific outcomes for students with disabilities go beyond those originally laid out in Goals 2000, as the emphasis and degree of specification for specific skills is often different for students with disabilities. NLTS and NLTS2 findings underscore the blunt reality of students with disabilities. Results from these studies have confirmed that students with disabilities consistently lag behind their peers without disabilities on school (e.g., graduation rates) and post-school (e.g., employment rates, post-secondary education attendance, and independent living and community involvement) achievement indicators (Blackorby & Wagner, 1996; Newman et al., 2011).

Therefore, if students are to be prepared for life after school, they must be encouraged to complete their education (Benz, Lindstrom, & Yovanoff, 2000). Students

with disabilities who are considered at risk for dropping out prior to graduation may benefit from online education programs because of the flexible nature and capabilities of the technologies used. In fact, many online education programs have begun to implement specific strategies to ensure that struggling students are successful (Archambault et al., 2010). As a result, many students with disabilities are now taking advantage of online education programs (Liu & Cavanaugh, 2010).

### **Online Learning**

Over the past two decades, online learning has experienced rapid growth, becoming an accepted alternative to traditional face-to-face schooling. In North America and other industrialized nations, distance education options for elementary and secondary students is viewed as a solution to several educational problems (e.g., crowded schools, shortage of secondary courses, lack of access to qualified teachers, and the challenge to accommodate students who need to learn at a pace or in a place different from a school classroom) (Cavanaugh, Barbour, & Clark, 2009). Another central purpose of K-12 online learning has been to expand school choice as outlined in NCLB (2002). Thus, it has grown in popularity because of the many advantages it provides, including (a) flexible and longer school time, (b) enhanced educational opportunities, and (c) increased access to resources (Cavanaugh, Gillan, Kromrey, Hess, & Blomeyer, 2004). As a result, cyber schools, defined as “an online learning program in which students enroll and earn credit towards academic advancement (or graduation) based on successful completion of the courses (or other designated learning opportunities) provided by the school” (Watson et al., 2004, p. 12), have developed at a rapid pace (Cavanaugh et al., 2009). In fact, both online and blended

learning opportunities are offered to students in all 50 states and the District of Columbia (Watson, Murin, Vashaw, Gemin, & Rapp, 2011).

**Students with disabilities.** A growing body of research has indicated that cyber schools extend equitable access to high-quality education to students from high-need urban and rural districts, low-achieving students, and students with disabilities (Hassel & Terrell, 2004; Rose & Blomeyer, 2007). Students with disabilities might benefit from distance education opportunities because of the ability of online courses to meet their unique needs. In fact, research has found that critically important elements of instructional design, which directly impact course usability by students with disabilities, are present in most contemporary courses (Keeler & Horney, 2007).

Interestingly, special education in the cyber context was ignored largely by the education community until 2010 when Project Forum convened at the National Association of State Directors of Special Education, and a state-of-the-nation report describing the issues and recommendations related to providing special education in public cyber schools was presented (Muller, 2010). More recently, the release of a Request for Proposal in mid-2011 by OSEP and the subsequent funding provided for the establishment of a Center on Online Learning and Students with Disabilities represents the belief held by the federal government that online education can serve all students (U.S. Department of Education, 2012; Watson et al., 2011).

Although the initial focus of online education programs was to provide gifted and talented students accelerated and advanced placement courses, as more educators have realized that such programs can offer an alternative to traditional education and successfully engage a multitude of students in learning, they have expanded to include

a broader range of students (Cavanaugh, Repetto, Wayer, & Spitler, 2013; Watson & Gemin, 2008). Consequently, the combination of increasing numbers of students with disabilities selecting online education programs, and the initiation of federal legislation aimed at closing the achievement gap and increasing graduation rates has propelled the establishment of programs that address the unique needs of students with disabilities to the forefront in public cyber schools (Muller, 2010; Repetto, Cavanaugh, Wayer, & Liu, 2010; Rose & Blomeyer, 2007).

### **Statement of the Problem**

Participation in online learning programs has become a practical option for many students with disabilities (Liu & Cavanaugh, 2010). Current estimates project that the number of students with disabilities enrolled in cyber schools is comparable to the ratio of students with disabilities found in traditional schools (i.e., 13.1% according to the U.S. Department of Education, 2012), although researchers have suggested that the number will continue to increase (Hassell & Terrell, 2004; Repetto et al., 2010; Rhim & Kowal, 2008). Therefore, it is critical that the fields of special education and distance education anticipate this growth and take steps to identify and/or develop quality special education programs. For students with disabilities, this must include transition planning practices.

It is a widespread belief that effective transition planning can decrease or eliminate many of the barriers that limit student achievement of post-school goals (McDonnell, Ferguson, & Mathot-Buckner, 1992; Wehmeyer & Webb, 2012). However, previous research that has investigated compliance with transition mandates of IDEA 1990, 1997, and 2004 and/or evidence of substantiated practices in IEPs has indicated that no studies have reported any states, districts, or schools have reached full compliance (Williams & O'Leary, 2001) and that incorporation of evidence-based

practices has been moderate at best (Blankenship, 2004; Grigal et al., 1997; Landmark & Zhang, 2012; Powers et al., 2005). Additionally, a small number of studies (Blankenship; Getzel & deFur, 1997; Grigal et al.; Landmark & Zhang; Powers et al.; Tillmann & Ford, 2001) have examined the impact of student demographic characteristics (e.g., disability and ethnicity) on transition planning practices. The findings have indicated that differences do exist, although their impact has not been fully examined (Powers et al.).

Researchers in the field of distance education have stressed the importance of data collection, analysis, and reporting on the educational experiences of students with disabilities within online learning environments (Cavanaugh et al., 2013; Muller, 2009; Repetto et al., 2010; Rhim & Kowal, 2008). Because this is a new area of research that concerns students with disabilities, it is worthwhile to consider that Odom et al. (2005) has recommended descriptive research as the starting point for all special education research. Therefore, the overarching purpose of the present study was to describe transition planning practices in public cyber charter schools.

### **Significance of the Study**

The present study contributes to both research and practice in the fields of special education and distance education. As an extension of Landmark and Zhang (2012), the present study allows for the findings of both studies to be compared, although not directly, because each study has investigated the extent that the transition components of the IEPs reflect compliance with the transition mandates of IDEA 2004 and the incorporation of evidence-based best practices in transition utilizing rigorous statistical analyses. Yet, because the IEPs included in the present study were from students with disabilities that attended at a public cyber charter school during the 2012-

2012 school year, and to date, no other studies have addressed transition planning in this context, original findings related to educating and preparing students with disabilities in online environments for post-school activities have been identified and discussed.

The secondary purpose of the present study was to determine the impact of individual demographic characteristics (i.e., disability category, racial/ethnic background, gender, and grade level) on transition planning practices. This information can equip and prepare special education programs, specifically those in other public cyber charter schools, to address the transition needs of a diverse population of students. The results can help public cyber charter schools to identify the data that is beneficial to collect and monitor so that transition planning practices are not only compliant and incorporate the use of evidence-based practices, but are equitable to all students.

Ultimately, the present study directly impacts the students with disabilities and the school personnel at the two public cyber charter schools in Pennsylvania. The results of the present study can be used to improve the transition components of the existing IEPs, which might lead to greater achievement of post-school goals. In addition, other public cyber charter schools can generalize the findings in order to better serve their students with disabilities through enhanced transition planning practices.

### **Purpose of the Study**

The purposes of this study were to determine (a) the characteristics of transition planning practices in public cyber charter schools by exploring the extent that the transition components of the IEPs reflect compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based practices in transition; (b) the impact of

individual demographic characteristics (i.e., disability category, racial/ethnic background, gender, and grade level) on the transition planning practices in public cyber charter schools by exploring the relationship between characteristics and the level of compliance with the transition mandates of IDEA 2004 and the relationship between characteristics and the level of incorporation of evidence-based practices in transition; and (c) the relationship between compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based practices in transition.

### **Research Questions**

The study addresses the following research questions:

**RQ 1.** What are the characteristics of transition planning practices evident in the IEPs of public cyber charter schools?

**RQ 1a.** To what extent do the transition components of the IEPs reflect compliance with the transition mandates of IDEA 2004?

**RQ 1b.** To what extent do the transition components of the IEPs reflect incorporation of evidence-based best practices in transition?

**RQ 2.** How do the demographic characteristics of students with disabilities impact transition planning practices evident in the IEPs of public cyber charter schools?

**RQ 2a.** Is there a relationship between a student's disability category, racial/ethnic background, gender, and grade level on the level of compliance with the transition mandates of IDEA 2004?

**RQ 2b.** Is there a relationship between a student's disability category, racial/ethnic background, gender, and grade level on the level of incorporation of evidence-based best practices in transition?

**RQ 3.** Is there a relationship between compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based practices in transition?

### **Delimitations and Limitations**

The presented study was delimited by the ages of the students and the location of the public cyber charter schools. This study focused on students with disabilities

between 14 and 21 years of age, who attended at one of the two public cyber charter schools that participated in this study during the 2012-2013 school year. This particular age group is important for the context of this study because it includes students receiving special education services who are of the age to require mandated transition planning. The IEPs of students who were 13 years of age at the implementation date were included as long as the student turned 14 before the services and programs expired. The public cyber charter schools are located in the state of Pennsylvania. As public cyber charter schools, the schools are part of the state public education system having been chartered and approved by the Pennsylvania Department of Education. As such, the schools receive funding through state tax dollars and are governed by the state public school, charter school, cyber charter school, and applicable local, state, and federal laws that include specific stipulations related to educating students with disabilities.

To obtain as many documents as possible from the two cyber charter schools, all IEPs of students were included. This sampling approach was preferred over a stratified sampling approach because it allowed the researcher to explore the transition planning practices in public cyber charter schools as they naturally occurred.

This study involved a document review in order to investigate the extent to which the transition components of the IEPs reflected compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based best practices in transition. This limitation recognizes that the researcher had no way of knowing how the IEPs were developed and whether the viewpoints of all of the IEP team members were represented with accuracy. Yet, because the IEP is a legal document that commits the

school to provide a student with a special education program and related services that will meet his or her individual needs, it can be inspected to ensure that a student is receiving a free appropriate public education (FAPE) and that the school is meeting all of the legal requirements as agreed to by school personnel and parents in the IEP meeting (Yell, 2012). Furthermore, although a school must make a good-faith effort to carry out the provisions set forth in the IEP, whether or not the special education program and related services were implemented properly was beyond the scope of this study.

## CHAPTER 2 REVIEW OF THE LITERATURE

The purpose of this chapter is to establish a context for the study. This chapter is organized into four sections, the first of which will introduce the theoretical literature on selected theories applicable to adolescent, emerging adult, and adult development. The second section will present the conceptual framework that connects the theoretical literature and the empirical literature. The third section will discuss the empirical literature, and is divided into two parts including, (a) studies that investigated the level of compliance with the transition mandates of IDEA 1990, 1997, and 2004, and (B) studies that investigated the level of incorporation of evidence-based practices in transition planning. The final section will provide a summary of the studies that investigated both compliance and practices.

### **The Theoretical Literature**

Many prominent theorists have concluded that the majority of development occurs during an individual's first two decades of life. While these theorists have offered diverse views about the adolescent stage of development, all have acknowledged that adolescence is a period of significant transitions (Fuhrmann, 1990). During these formative years, individuals become more self-aware, more independent, and more concerned about what the future holds (Steinberg, 2005). It is the stage of development in which an individual transitions from a child to an adult.

In contrast, more contemporary theorists have recognized that individuals continue to develop physically, cognitively, and emotionally throughout their entire lives (Kail & Cavanaugh, 2013). Therefore, childhood, adolescence, emerging adulthood, and adulthood can be viewed as developmental states that involve a variety of

transitions. The following sections briefly summarize selected theories applicable to adolescent, emerging adult, and adult development.

### **Psychoanalytic Theory**

**Erik Erikson.** As a post-Freudian theorist, Erikson (1950) was influenced greatly by the work of his predecessor. Although he acknowledged many significant contributions of Freud's psychosexual theory, which focuses on the tension occurring as sexual energy seeks release, Erikson challenged multiple aspects of the theory (Crandell, Crandell & Vander Zanden, 2011). For example, he sought to move away from the belief that the personality is primarily established during the first five to six years of life, concluding that the personality continues to develop over the entire lifespan. Erikson extended Freud's notions of the internal dimensions of the mind to include the influences of culture, society, and history. Thus, he created his own psychosocial theory, which considers the development of the individual within a social context. The core concept of this theory is the acquisition of an ego-identity.

In his famous chapter, "Eight Stages of Man," Erikson (1950) expanded Freud's stages of psychosexual development by placing an increased emphasis on the social context of development. Each stage is characterized by a crisis or conflict containing the possibility of bipolar outcomes that gives each stage its name. In order to develop into a healthy individual, the crisis must be resolved by finding a balance of strengths and weaknesses. If this balance is established, adaptation towards the environment and the community surrounding an individual is enhanced. If balance is not achieved, the ego can lose strength and individual is at risk of developing distorted thinking and behaviors.

According to Erikson (1968), adolescence is characterized as the period of time that signals the end of childhood and the beginning of young adulthood. It is during this stage that an individual must establish his or her identity and avoid the threat of identity confusion. The favorable outcome of identity achievement entails that the individual assess his or her strengths and weaknesses and determine how to deal with them, as well as to clarify what he or she wishes to achieve in life. That is, that a coherent sense of self-concept is distinguished.

Although Erikson (1968) included detailed explanations of the developmental stages of adolescence and young adulthood in his psychosocial theory, he addressed the prolonged adolescence experienced in industrialized societies. This identified, yet unnamed stage is in some ways adolescence and in some ways young adulthood. Specifically, it is defined as a period of time during which adult commitments and responsibilities are deferred, while the role experimentation initiated in adolescence persists with great intensity.

### **Cognitive Theory**

**Jean Piaget.** Contrary to Erikson's psychosocial theory of development that focuses on personality development, is Piaget's cognitive theory that centers upon the changes occurring in a child's mode of thought. The process of knowing (i.e., cognition) involves the unique way in which a child represents, organizes, treats, and transforms information to create a behavioral response to his or her environment (Crandell et al., 2011). According to Piaget (1954), development occurs because children engage in a continual interaction with their environment, which challenges their mode of thought to adapt to meet new demands. Therefore, for every novel experience a child encounters, his or her mode of thought is altered, leading to new perceptions about the world around

them and new organizations of knowledge. These interactions, along with natural growth, combine to take them through a series of separate, age-related stages in development: sensorimotor stage, preoperational stage, concrete operational stage, and formal operational stage (Crandell et al.). Each stage is characterized by the maturing of the individual's ability to think—to gain knowledge, self-awareness, and awareness of the environment. For example, the final stage that corresponds with adolescence (i.e., 11 years and older) is classified by the ability to deal with abstractions and engage in scientific thought (Crandell et al.).

### **Sociocultural Theory**

**Lev Vygotsky.** Vygotsky's sociocultural theory provides a developmental perspective of how mental functions are shaped by the beliefs, customs, and skills of the culture in which children are raised (Kail & Cavanaugh, 2013). Thinking, reasoning, and remembering are facilitated through systems of signs and symbols (i.e., language), and these functions are based in the child's interpersonal relationships during activities such as play (Crandell et al., 2011). Full cognitive development is limited to a specific time span known as the zone of proximal development, and is dependent upon full social interaction (Kozulin, Gindis, Agreyev, & Miller, 2003). According to Vygotsky (1978), a child will interact with a skilled individual, assimilate the social aspects of the activity, and internalize what he or she has learned. In this way, social values become personal values. Therefore, the range of skill that can be developed with adult guidance or peer collaboration exceeds what can be attained alone.

### **Ecological Theory**

**Urie Bronfenbrenner.** The ecological approach posits that all aspects of development are interconnected, so that no single aspect can be isolated from others

and understood independently (Kail & Cavanaugh, 2013). Bronfenbrenner is the most well known proponent of this theory. His work directly connected the measurement of human development with contextual rather than biological or behavioral factors (Bronfenbrenner, 1979).

Bronfenbrenner divided the environment into four complex and interactive systems (i.e., the microsystem, the mesosystem, the exosystem, and the macrosystem) that surround the developing individual and have a powerful influence on development (Kail & Cavanaugh, 2013). The environments expand from the innermost level, including immediate family and home, to the broader cultural context, and are dynamic through time. Bronfenbrenner (1979) suggested that the developmental indicator central for evaluating an individual's growth is how his or her behavior progresses to match the behavior of others within shared environments. Thus, an ecological theorist would emphasize that, to understand why adolescents behave as they do, the many different systems that influence them, such as parents, peers, social media, and government policy must be considered (Kail & Cavanaugh).

### **Emerging Adulthood**

As indicated by the previously described theories, theorists originally considered that much of development occurred during childhood and adolescence. Yet, for the majority of individuals in industrialized societies, the late teens through the mid-twenties (i.e., 18-25) are years of significant personal growth. Accordingly, Arnett (2000) proposed a theory of emerging adulthood. "Emerging adulthood is distinguished by relative independence from social roles and from normative expectations" (p. 469).

Although a number of important theoretical contributions have aided in the understanding of development from the late teens through the mid-twenties, the most

notable early contributor was Erikson. Much like the period of prolonged adolescence described by Erikson, Arnett has reasoned that emerging adulthood is theoretically and empirically different than both adolescence and young adulthood. It is a stage of life during which an individual no longer experiences the dependency of childhood and adolescence, yet has not assumed the responsibilities of adulthood. Therefore, because plans for the future have not been made clear, emerging adults are able to consider an array of potential life directions.

Arnett (2000) posited that emerging adulthood is a culturally constructed stage of life. Demographic shifts throughout the last several decades have shaped the late teens and early twenties into a distinct stage of life that can be defined by prolonged exploration of potential life directions. In fact, the extent of independent exploration is greatest for the majority of individuals during this stage of life above any other.

### **Lifespan Theory**

Some theorists have recognized that individuals continue to evolve throughout their entire lives (Kail & Cavanaugh, 2013). Brim and Kagan (1980) support a lifespan development approach. Their position disagrees with stage theories, because “stages cast development as unidirectional, hierarchical, sequenced in time, cumulative, and irreversible—ideas not supported by commanding evidence” (p. 13). Lifespan theorists distinguish life events as milestones or transition points that play a fundamental role in development (Schlossberg, Waters, & Goodman, 1995).

Baltes, Lindenberger, and Staudinger (1998) have identified four main assumptions about development according to the lifespan perspective. First, development is lifelong. This refers to the belief that no single age period (e.g., childhood) is preeminent in its impact on the life course. Second, development is

multidimensional and multidirectional. Transition points are affected by multidimensional forces such as social, environmental, and historical change. For example, an individual is influenced by the distinct set of circumstances governed by the historical time and the culture in which he or she is raised. Development is multidirectional because it involves growth and decline of abilities at distinct rates. Third, development according to the lifespan perspective is highly plastic. Plasticity has to do with an individual's capacity for learning or improving a skill with advancing age. Fourth, development is shaped by many interacting forces. Multiple causation refers to the development that occurs as a result of biological, psychological, socioculture, and life-cycle forces. Collectively, the four principles of the lifespan perspective establish a means for describing and explaining the successful adaptation of people to the changes that occur as they mature.

### **Transition Theory**

Schlossberg (1981) revealed her theory in an attempt to describe “the extraordinarily complex reality that accompanies and defines the capacity of human beings to cope with change in their lives” (p. 3). Originally termed a model, Schlossberg based her original conceptualization on the work of many researchers, incorporating elements of developmental, contextual, emerging adult, and lifespan theories into the transition perspective. Her work has been set forth to provide professionals who work with individuals going through a change or transition with a framework for analyzing transitions and formulating potential interventions.

Schlossberg (1981) defined transition as any event, or non-event, that results in changed relationships, routines, assumptions, and role. The ideal outcome of any transition is adaptation. Schlossberg defined adaptation as the progression from being

entirely preoccupied with the transition to incorporating the transition into his or her life. The theory recognizes three major sets of factors that influence adaptation to transition, including (a) the characteristics of the transition, (b) the characteristics of the pre- and post-transition environment, and (c) the characteristics of the individual in transition.

Schlossberg (1981) observed that the majority of transitions have been described using a common set of characteristics. The characteristics are (a) role change, (b) affect, (c) source, (d) timing, (e) onset, (f) duration, and (g) degree of stress. Three characteristics of the pre- and post-transition environment have been noted. The characteristics are (a) interpersonal support systems, (b) institutional supports, and (c) physical setting. The final factors that influence the adaptation to transition are the characteristics of the individual in transition. Although Schlossberg (1981) focused on specific individual characteristics, she noted that there are many others that may be considered. The characteristics she concentrated on are (a) psychosocial competence, (b) gender, (c) age, (d) health status, (e) race and ethnicity, (f) socioeconomic status, (g) value orientation, and (h) previous experience with a transition of a similar nature.

**The 4 S System.** Schlossberg and her colleagues (1995) introduced the 4 S System (4 S's) to provide structure to the process of identifying all possible resources an individual has available to cope with the transition. The 4 S's apply to an individual's Situation, Strategies, Support, and Self. These four factors can be considered possible assets and/or liabilities. Because the assets and/or liabilities of each of the 4 S's are unique to every individual, reactions to common transitions (e.g., high school graduation) will be different. That said, although some transitions may not be under

control, an individual can control the way he or she manages them by strengthening available resources (i.e., 4 S's).

### **Conceptual Framework**

Schlossberg (1981) described transition theory as tentative and exploratory in that it is practical for research but open to revision. Thus, it offers a starting place to view any transition. For example, when working with students, individual factors affecting transition can be identified and placed within the framework to assist those helping the individual to find and implement helpful interventions. Therefore, this study applies the transition theory to the transition planning practices provided to students with disabilities that support the achievement of desired post-school activities.

In order to understand the significance of a particular transition for an individual, it is imperative that consideration be given to multiple aspects of the transition.

Schlossberg maintained that the stressfulness of an event does not depend entirely on the actual event, but on the balance between an individual's assets and liabilities (i.e., 4 S's) at the time of the event. Figure 1 depicts the interconnected relationship between the 4 S's as they apply to the transition planning practices provided to students with disabilities and the central objective of post-school success.

### **Situation**

Each situation varies according to a variety of factors. Students making the transition from school to post-school life experience an anticipated transition since the point of graduation is known. For the majority of students, graduating from high school affects their day-to-day lives causing a dramatic, and in some cases, traumatic role change. The degree of stress caused by the transition is subject to individual and environmental factors (Schlossberg et al., 1995).

## **Strategies**

Coping with a transition is sustained through flexible utilization of a range of strategies (Schlossberg et al., 1995). For students with disabilities, transition planning, as mandated through IDEA (2004), can help to ease the stress that accompanies the transition from school to post-school life. An effective transition plan will assist a student and his or her education team to ensure that the necessary assets (i.e., services and supports) are in place and that liabilities are minimized. Transition planning that incorporates the use of evidence-based practices has been linked to improved achievement of post-school activities (Kohler, 1993; Test, Mazzotti, et al., 2009).

## **Support**

Reliable support can come from a variety of sources. Every source serves a specific function within a united support system. The characteristics of the pre- and post-transition supports and the physical setting directly impact an individual's ability to adapt to a transition (Schlossberg, 1981).

**Interpersonal support systems.** Schlossberg et al. (1995) found that social support is the key to handling a stressful transition. This type of support has been defined by the notion that each individual progresses through life accompanied by a group of other persons with whom the individual has a direct relationship centered upon either the giving or receiving of social support (Kahn & Antonucci, 1980). Schlossberg et al. incorporated this concept into transition theory, and identified the family unit and network of friends as the most important sources of this type of support. For example, some students have families that provide advice, protection, and reinforcement of a sense of worth, while other families do not provide this type of support. The main

function of the internal support systems is to assist the individual in initiating psychological resources that will meliorate emotional burdens brought on by a specific transition. Members of the support network may also alleviate stress by providing extra supplies of money, materials, and skills (Schlossberg et al.).

This concept appears to be closely related to what the field of special education has defined as a natural support network. A natural support network refers to “the set of individuals with whom a person has ongoing interactions in everyday life, reflecting various levels of friendship, caring, support, and assistance for both parties across a variety of activities” (Ryndak & Muldoon, 2003). When an IEP necessitates access to the general education context, students are likely to form friendships with their same-aged peers without disabilities, who then become potential members of the natural support network for those students. These valuable friendships often result in both social and academic growth. With a stronger and broader network of friends, students with disabilities, especially students with significant disabilities, may experience greater achievement of their post-secondary goals. Students are able to learn social skills critical to interacting with peers and adults without disabilities that may enhance their ability to function independently across both pre- and post-transition environments (Ryndak, Ward, Alper, Storch, & Montgomery, 2010).

**Institutional support systems.** This type of support includes occupational organizations, religions institutions, social welfare or other community support groups, and various other more or less formal outside agencies to which an individual can turn to for help (Schlossberg, 1981). Institutional supports are different for every individual. For students with disabilities, it is a critical aspect of transition planning that students are

connected with the resources they will need both in and out of high school. For this reason, it is important that all of the necessary individuals and/or agency representatives be in attendance at the transition planning IEP meeting. In addition, the individuals and/or agency representatives responsible for providing a specific service or activity to enable a student to work toward a post-secondary goal must be specified explicitly in the IEP. For example, if a student's post-secondary goal is employment, he or she may need support from Vocational Rehabilitation Services in order to prepare for, obtain, or retain employment.

**Physical environment.** Students with disabilities are more likely to experience greater achievement of post-secondary goals if they are given access to the general education curriculum and are able to meet the general education requirements necessary to complete school and receive a standard diploma (Colley & Jamison, 1998; Test, Aspel, & Everson, 2006; Watson & Gemin, 2008). Therefore, it is vital that the learning environment be both accessible and supportive to the needs of students with disabilities to ensure that they stay in school and are successful. For some students with disabilities, cyber schools have become a popular alternative to traditional schools because there are a number of perceived advantages to students (Barbour & Reeves, 2009; Hassel & Terrell, 2004). For example, most contemporary online courses have been designed using critically important elements of instructional design, which directly impact course usability by students with disabilities (Keeler & Horney, 2007).

Like traditional schools, cyber schools are required to comply with a number of detailed procedures concerning the provision of special education and related services in schools (Rhim, Ahearn, & Lange, 2007). This includes abiding by IDEA (2004), as

well as related state laws. Consequently, transition planning is required for students with disabilities enrolled in virtual schools.

## **Self**

Self refers to what an individual brings to a transition (Schlossberg et al., 1995). Each individual is unique; therefore, understanding Self can be complex. Schlossberg et al. have identified noteworthy characteristics that influence how an individual reacts to a transition.

**Personal and demographic characteristics.** Personal and demographic characteristics directly impact an individual's perception of life. Relevant characteristics can include gender, ethnicity, age/stage of life, and state of health. The relationship between gender and the transition process is complex. For students with disabilities, research has found that gender can influence transition planning, and subsequently, post-school activities (Hogansen et al., 2008; Trainor et al., 2008). Likewise, an individual's ethnicity (e.g., African American) has been found to be a predictor of lower compliance and lower evidence of substantiated practices in IEPs (Landmark & Zhang, 2012). According to Schlossberg et al. (1995), life stage may be a more useful concept than chronological age. Schlossberg et al. look at age as the place an individual is in life based upon his or her functional, social, and psychological age. This point of view regarding age is helpful when considering students with disabilities because of delays in development that may have occurred. Although Schlossberg's theory does not discuss disability, conceptually, it can be included within the state of health characteristic. Disability not only affects an individual's ability to adapt to transition, but also may itself be a source of stress.

**Psychological resources.** Psychological resources are the characteristics of an individual's personality that he or she draws upon to cope with stress (Schlossberg et al., 1995). These characteristics can include ego development and self-efficacy, as well as religious beliefs and cultural norms. Students with disabilities need to receive instruction on specific skills, including self-determination (Eisenman, 2007; Wehmeyer & Schwartz, 1997) and cognitive behavioral interventions (Cobb et al., 2006). For example, students benefit from learning metacognitive strategies that teach them critical skills, including (a) how to evaluate academic and behavior situations, (b) how to provide a response, and (c) how to evaluate the effects of their response (Deshler & Schumaker, 2006).

## **The Empirical Literature**

### **Compliance in Transition Planning**

For students with disabilities, the transition from school to post-school life is facilitated by transition planning practices that include (a) a comprehensive assessment of strengths, needs, preferences, and interests, (b) the development of a set of transition activities and services that is included in the IEP, and (c) the implementation of the elements included in the IEP (Wehmeyer & Webb, 2012). As the legal contract between a local education agency (LEA) and a family regarding educational programming, IEPs have been used by state or federal governmental agencies to monitor the special education services provided by schools (Yell, 2012). They have been inspected to ensure that a student receives an appropriate special education and that the school meets all of the legal requirements agreed upon during the IEP meeting. This includes transition services.

Since IDEA 1990 instated the requirement of formal transition planning, researchers have examined the status and quality of these practices (Lawson & Everson, 1994; deFur, Getzel, & Kregel, 1994; Getzel & deFur, 1997; Grigal, Test, Beattie & Wood, 1997; Shearin, Roessler, & Schriener, 1999). These and subsequent investigations have included the extent to which transition components are compliant with the legislative mandates as evidenced in the IEP (Landmark, & Zhang, 2012). Although it is evident that a fully compliant IEP cannot guarantee that a student will achieve a successful transition to adulthood, seeing as documentation of the implementation of the transition practices is not required, it does offer some assurance that the specified activities and services included in the IEP have been determined appropriate to help the student achieve his or her post-school goals. McDonnell, Ferguson, and Mathot-Buckner (1992) have indicated that effective transition planning can decrease or eliminate many of the barriers that limit student achievement of success post-school.

According to Lake (2002), the most common transition mistakes schools make include the failure to (a) address transition in the IEP of a student who is 16 or older, (b) invite and/or include the required participants at the IEP meeting, (c) inform the parents about the function of transition planning, and (d) develop a transition plan that incorporates a coordinated set of activities to help the student achieve his or her post-school goals. Lake (2007) has claimed that the failure to comply with those procedural requirements may result in a substantial deprivation of FAPE. Accordingly, courts have not ruled in favor of school districts that have neglected to develop transition plans or have developed plans that minimally comply with the mandated requirements.

Previous research in the area of compliance with IDEA transition component requirements has shown that incremental increases have occurred over the years (Landmark & Zhang, 2012). To date, no studies have reported 100% compliance. Because each reauthorization of IDEA has modified the transition component requirements included in the IEP, the following sections will (a) define the transition component requirements of IDEA 1990, 1997, and 2004, and (b) review the studies that have investigated the compliance with the transition component requirements of IDEA 1990, 1997, and 2004.

### **IDEA 1990**

The stipulation of transition services was a major addition to IDEA in 1990.

Formally, the term transition services referred to a

coordinated set of activities for a student, designed within an outcome-oriented process, which promotes movement from school to post-school activities including postsecondary education, vocational training, [and] integrated employment (including supported employment, continuing and adult education, adult services, independent living, or community participation). (IDEA Regulations, 34 C.F.R. § 300.18 *et seq.*)

The amendments of 1990 mandated that transition planning based upon individual needs, preferences, and interests was to be included in the IEPs of students with disabilities who were 16 years of age or older (Yell, 2012). Each transition plan was to include a statement regarding each of the requisite transition services, including (a) instruction, (b) community experience, (c) the development of employment and adult living objectives, and (d) acquisition of daily living skills and a functional vocational evaluation. Furthermore, each transition plan was to include a statement of agency responsibilities and/or linkages when appropriate. Five studies examined compliance with the transition component requirements of IDEA 1990.

Lawson and Everson (1994) conducted a national study to determine the format and content of the statements of transition services for students who were deaf-blind. To address IDEA mandates, they analyzed a total of 52 transition plans. The findings indicated that the IEP team responsible for developing the transition plans did not understand the transition component requirements of IDEA, nor the purpose for including statements of transition services in the IEP. Specifically, the researchers noted that statements of transition services and the corresponding action steps did not reflect the purpose of providing for and facilitating student participation in adult employment and community participation. Transition outcomes often were limited to the areas of vocational training and self-help skills development.

Evidence indicating that the IEP team members had attempted to coordinate current school services with available adult services resources did not exist in the reviewed transition plans. It was noted that adult services representatives rarely were involved. Even more alarming were the findings that students and their family members were involved to an even smaller degree. As a result, statements of transition services were not individualized consistently to match student needs or desired outcomes. Overall, the researchers determined that the statements of transition services were less than satisfactory.

deFur et al. (1994) completed a descriptive analysis of transition plans for students with learning disabilities across 14 urban, suburban, and rural school districts in Virginia. A total of 100 transition plans were examined to determine (a) demographic information, and (b) information about the transition process (e.g., who attended the planning meeting, and the adult services recommended through the planning process).

The results of the review revealed that 48% of students in the upper grades (i.e., 11-14) attended the transition planning meetings. Special education teachers (90%) and administrators (31%) were the most likely participants in the transition plan meetings. Other school staff members and community representatives typically were not present at transition planning meetings. The most common post-school outcomes identified in the transition plans were trade/technical schools (23%), community colleges (20%), and full-time employment (36%). Other services that students often need to transition successfully into the community (e.g., transportation options, income supports, counseling) were not specified in the transition plans.

Getzel and deFur (1997) investigated the transition services for 84 students with significant disabilities (e.g., autism, multiple disabilities, and severe and profound disabilities) in Virginia. They collected compliance data using the IEP Transition Planning Information Form designed to collect a variety of transition-related information after each IEP meeting. The findings show that only a third of the students with significant disabilities were present at their IEP meeting. High rates (89%) of family participation were reported. The most highly represented team members involved in transition plan meetings were special education teachers (93%) and related services staff (36%). Community agency representatives were most often rehabilitation counselors (4%) or case managers from local service agencies (19%).

Employment was identified most frequently as a primary post-school outcome. More specifically, supported employment (21%) outcomes were anticipated for over a third of the students. Yet, a greater number of students (40%) had sheltered or day activity centers as their employment goal. The post-school living arrangement identified

in 60% of transition plans was living with family members. Students with significant disabilities were more likely to receive supports in the transition plan that focused on training in daily living skills (84%) or social skills (75%), and less likely to receive supports that focused on training in self-advocacy skills (18%).

Grigal et al. (1997) examined the transition components of the IEP documents of 94 students with mild mental retardation, moderate mental retardation, learning disabilities, and emotional/behavior disorders who were between the ages of 18 and 21. The researchers evaluated each transition component of the IEP using a modified version of the Statement of Transition Services Review Protocol originally developed by Lawson and Everson (1994). The results of this study suggested that the transition components did comply with the mandates of IDEA. The special education teacher was present at 90.4% of transition plan meetings, followed by the student and family members (both 62.5%). An LEA representative attended 31.9% of the meetings, while less than 10% of the meetings were attended by a transition specialist, vocational education teacher, or community-based instruction coordinator. There was little evidence supporting the involvement of adult service providers in transition planning at the meetings.

Vocational training (81.9%) and integrated employment (60.6%) goals were identified in the transition components that appeared most often in plans. Post-secondary education (30.9%) goals were reflected in transition plans more often than continuing adult education (10.6%) goals. Adult services (53.2%), independent living (52.1%), and leisure and recreation (59.6%) goals were incorporated on over half of the transition components. Community participation (42%) goals also were listed.

Grigal et al. (1997) found that significant differences existed between disability groups and the types of outcome areas reflected in the transition components identified in the IEP documents. Students with mild mental retardation had the most transition-related goals and/or activities in the areas of living arrangements and community participation, and the least in integrated employment. Students with moderate mental retardation had the most vocational training, integrated employment, adult services, independent living, and leisure and recreation goals and/or activities, and the least related to post-secondary and continuing adult education. Students with learning disabilities were found to have the most post-secondary and continuing adult education goals and/or activities, and the least adult services. Finally, students with emotional/behavioral disorders did not have an outcome area in which they had the most goals and/or activities. However, they had the least in independent living, living arrangements, and community participation.

Regarding transition goals, 99% of the transition plans included employment goals, 99% included education and training goals, 90% included residential goals, and 86% included recreation and leisure goals. Even though the transition plans had goals related to all of the major outcome areas, the quality of the goals was rated as only adequate to minimal. Goals did not articulate the specific steps that would facilitate the successful transition from school to post-school life. For example, most goals included vague statements of outcomes (e.g., "will explore jobs"). In addition, the school staff responsible for action-step goals was illusive. The timeline for every goal was the graduation date, which did not allow for short-term evaluation of progress and/or mastery.

Shearin et al. (1999) used an outcome/skill checklist to evaluate the transition content of 68 IEP documents from two high schools in Arkansas. The IEP documents of students with specific learning disabilities (48%) comprised most of the sample, followed by students with mental retardation (37%). Specifically, the analysis focused on (a) participants involved in the development of the IEPs, (b) the extent to which program content address specific transition outcomes, and (c) the names of persons/agencies identified for delivering services. Special education teachers (104%, more than one per plan), school counselors (62%), administrators (22%), school psychologists (20%), and speech pathologists (16%) were the most frequent school staff members to participate in the transition plan meetings. Students and their family members were in attendance at 30% of the meetings. Outside agencies had minimal involvement, with their participation noted in less than 20% of the meetings.

Of the 68 plans examined, 78% did not address post-secondary education, nor was a statement included to explain why the outcome was not needed. Similarly, 48% of the plans did not address post-secondary employment, and did not include a statement explaining its exclusion. Sixty-six percent of the plans also neglected to address independent living options for students, and did not offer an explanation. Most plans mentioned goals or justification statements concerning daily living skills (e.g., recreation and leisure, transportation). Fifty-three percent of the plans listed "school" as the key agency responsible for implementing the transition services, with no specific staff member identified. Only 12% of plans listed community agencies as resources for needed services, again, with no specific staff member identified to establish interagency linkages.

## **IDEA 1997**

The amendments of 1997 were passed to reauthorize and improve IDEA. The significant changes to the law underscored the goal of increasing the effectiveness of special education by requiring verifiable progress in the educational achievement of students with disabilities (Yell, 2012). As such, students with disabilities were given increased access to the general education curriculum, as well as state and local standardized assessments (Johnson, 2012). While transition services were to begin at 16 years of age, modifications to the transition component requirements established that a statement of transition service needs was required at 14 years of age. Beginning at age 14, and updated annually, the IEP team was to consider the courses of study and determine whether those courses were preparing the student to achieve his or her post-school goals. The provision to transfer the rights at the age of majority was initiated in order to empower students with disabilities to express their needs, preferences, and aspirations. Due to the low levels of compliance with IDEA 1990, followed by the amendments of 1997 that fortified IDEA and the transition component requirements, numerous studies that examined compliance with the amended transition component requirements of IDEA were carried out.

Thompson, Fulk, and Piercy (2000) conducted a study to determine whether transition plans matched the perceptions of high school students with learning disabilities and their parents regarding post-school goals and support needs. Although it was not the primary purpose of the study, the researchers also collected data on the involvement of students and parents in transition planning. Data was collected from multiple sources including (a) student cumulative files, (b) the Transition Planning Guide (TPG), and (c) interviews with 22 students and their parents. The TPG on file for each

student was used in transition planning, and contained three sections of data: (a) General Information (b) Desired Post-School Outcomes, and (c) Action Plan. The first page of the TPG included a section to write in the names and titles of participants in the transition planning process, as well as a place to mark the level of participation.

Briefly, the findings of the study revealed that the majority of students and parents projected that students would pursue post-secondary education, work in competitive employment, and participate in recreation and leisure activities. Student perceptions regarding the type and level of support needs were less than those of their parents. Concerning participation, the results showed that 64% of students and 82% of parents were identified as having been involved in transition planning on one or more occasions. The TPG document reviews indicated that three out of the eight students and two out of the four parents who had never been involved in transition planning had received a request for participation on more than one occasion. Only 9% of the TPG documents recorded any involvement in transition planning by agency representatives despite the fact that most students and parents had projected support needs.

Tillmann and Ford (2001) explored transition services components in 282 IEPs for high school students with disabilities. The researchers utilized The Program Evaluation for Procedural and Substantive Efficacy of Transition Services instrument to evaluate 35 items that measured procedural compliance. Results were analyzed across special education classification (i.e., learning disability, emotional disability, and mental retardation) and school district size (i.e., urban and rural). Even though none of the documents were fully compliant, in general, the level of compliance was reasonable. Of

the 35 items that measured procedural compliance, school districts ranged from 50% to 100% compliant on each item.

Findings revealed that only 30% of students attended the transition planning IEP meeting; however, transition service needs that were based upon statements of student interests and preferences were included in 73% of the reviewed IEPs. Goals in the area of instruction were present on 84% of documents, employment and other post-school living objectives were present on 73% of documents, and community experiences were present on 63% of documents. Only 30% of transition plans had created linkages with community agencies. The researchers found no significant differences in the way that transition services were implemented, as indicated in the IEP document, between urban and rural school districts. Yet differences were apparent across special education classification. For example, evidence suggested that students with emotional disabilities had the least annual goals, while students with mental retardation had the most annual goals.

Everson, Zhang, and Guillory (2001) evaluated 329 transition plans of high school students with various types of disabilities in Louisiana to identify the strengths and weaknesses of the transition components in the IEPs. The results of this study generally indicated that the requirements were addressed. Specifically, post-secondary education (38%), vocational training (44%), integrated employment (29%), continuing/adult education (34%), adult services (10%), independent living (46%), and community participation (49%) were all addressed to some extent in the transition components of the IEP documents. Alternatively, additional areas (e.g., health/medical

issues, advocacy/legal issues, and transportation issues) were less likely to be addressed.

Denkyirah (2003) completed a doctoral dissertation study by investigating the extent to which IEPs supported the transition requirements of IDEA and the effect of student demographics (i.e., gender, disability, ethnicity, socioeconomic status, and anticipated year of graduation) on IEPs over time. The researcher collected 100 transition plans spanning a five-year period from two school districts in Illinois in order to collect data concerning quality transition characteristics, student and parent attendance at transition meetings, and agency involvement in the transition planning process.

Findings showed that the transition plans did not fully comply with IDEA. Students were in attendance at 79% of the IEP meetings. While the overall degree of family attendance was high (83%), mothers attended transition planning meetings more frequently than fathers. Additionally, Caucasian parents (91.2%) attended the IEP meetings more often than African American parents (65.6%). Agency representatives had the lowest rate (6%) of attendance. Although it was speculated that because an overwhelming majority of the sample was comprised of students with learning disabilities (90%) that adult agency services may not have been required.

All reviewed IEPs provided post-school goals and a statement of transition service needs. This finding was consistent across the years and across all student demographics. However, none of the IEP documents included a statement of transition service needs that specified a course of study. Evidence revealed that transition plans were not updated annually as students neared school completion. Interestingly, the transition components found in the IEP documentation of high school juniors had the

greatest level of compliance, above students in any other grade (i.e., 9, 10, or 12). Statistically significant differences in the level of compliance were found for ethnicity. For example, the IEPs of Caucasian students had stronger levels of compliance with transition mandates than those of African American students.

One purpose of the doctoral dissertation study conducted by Blankenship (2004) was to examine the level of compliance with the transition requirements of IDEA. The researcher gathered 88 IEP documents of 50 transition-aged students with visual impairments from Iowa. The presence of mental retardation also was reported for 31 of the students. If a student was 14 years of age, teachers submitted one IEP, if the student was 16 years of age, two IEPs were submitted, and if the student was older than 16, the last IEP written for the specific student was submitted as well ( $n = 3$ ). The Transition IEP Review Form (O'Leary, Lehman, & Doty, 2001) was used to collect compliance data from the submitted IEP documents.

Results revealed that the level of compliance with the transition requirements ranged from low (39%) to moderate (85%). Family attendance in IEP meetings was reported as 100%. Students did not always attend the IEP meetings. The requirements to include a statement of transition service needs, including a course of study by age 14, usually were fulfilled. Although most IEPs did not address all five of the required transition areas, instruction and related services were identified more frequently than community experiences, or employment and post-school living objectives. Most IEPs included a statement for the age of majority.

Powers et al. (2005) reviewed the quality of transition plans, including adherence to IDEA mandates, of 399 transition plans for students from two large, urban school

districts located in two states in the western United States. The researchers employed a three-level nested sampling design to collect the IEP documents. The first level was gender, the second level was ethnicity, and the third level was disability. To evaluate each transition plan, a modified version of the Statement of Transition Services Review Protocol was used.

The results of this review typically showed that students had goals in 4.38 of the 12 transition component areas. The most common targeted goal areas were integrated employment (63.7%), transportation (60.9%), and community recreation and leisure (50.4%). The least common targeted goal area was adult education (1.7%). The transition plans of female students were not significantly different than those of male students; however, differences by ethnicity and disability were realized. Hispanic students were more likely to have their cultural background (e.g., English language proficiency) acknowledged on transition plans. Students with developmental disabilities were less likely to have post-secondary education and/or employment goals addressed on transition plans. Additionally, the goals that were present were less likely to reflect student interests or desires.

The most consistent participants in transition plan meetings were school administrators (87.1%) or family members (81.8%), followed by special education teachers (78.2%), students (75.8%), and general education teachers (39.1%). Transition specialists (20.8%), school psychologists (21.6%), and vocational rehabilitation staff members (1.1%) were involved less frequently in the meetings.

Steele, Konrad, and Test (2005) investigated the quality and quantity of information included in the transition components of IEPs. The IEPs were those of 28

students with varied disabilities (i.e., learning disabilities, behavioral/emotional disabilities, or mild or moderate mental retardation) who had graduated or exited with a formal school completion document from one of two high schools recognized as model transition sites. Using a modified version of the instrument developed by Lawson and Everson (1994), and later modified by Grigal et al. (1997), the researchers collected information in four areas, including compliance.

The IEP team members that were present most often were special education teachers (96.4%), school administrators (92.9%), family members (75.0%), general education teachers (71.4%), and students (57.1%). The quality of the outcome goal statements, if present, was found to be average. Employment and residential outcomes (both 89.3%) were addressed in most of IEPs. Conversely, transition components did not list an outcome in recreation and leisure (96.4%) or post-secondary education and training (75%) in the majority of IEPs. Students (67.9%) were the most frequently identified team members responsible for carrying out part of the IEP. Special education teachers (60.7%), general education teachers (42.9%), transition specialists/community based instructors (28.5%), vocational educators (25.0%), and family members (21.4%) were also identified.

Williams and O'Leary (2001) assumed a broader approach than previous studies when they conducted a systematic examination to determine the overall status of implementation of transition services by the states and entities that received IDEA-Part B funds between 1993 and 1997. The researchers collected 54 monitoring reports and analyzed the transition services sections utilizing a checklist designed to record the findings made by OSEP during each monitoring cycle. The results of the investigation

concluded that during the four-year period, 35% of states and entities had not invited students to attend the IEP meeting that was to consider transition services. Additionally, 26% of states and entities neglected to address student needs, preferences, and interests when the student was not present. Agency representatives had not been invited to attend the IEP meeting by 52% of states and entities. The monitoring reports indicated that 22% of states and entities did not ensure involvement in transition planning if the agency representative was not present at the meeting. Over the four monitoring cycles, IEPs were characterized by a lack of transition services statements in the required areas of instruction (48%), community experiences (54%), and employment and adult living (both 50%), as well as a statement explaining why these services were not needed (41%).

Between 1993 and 1997, the change in the frequency with which states and entities were in compliance was small. There was a slight reduction in the percentage of states and entities out of compliance with the requirement that a student must be invited to the IEP meeting (54% to 45%). The requirement of states and entities to base statements of needed transition services on student needs, preferences, and interests mostly was constant (8% to 9%). There was a small increase in the percentage of states and entities out of compliance with the requirement that agency representatives must be invited to the IEP meeting (46% to 55%). The involvement in transition planning if the agency representative was not in attendance at the meeting mainly remained unchanged (31% to 27%). Transition services statements indicated that they consistently lacked the necessary components during the four monitoring cycles for all of the required outcome areas (62% to 73%).

## **IDEA 2004**

The amendments of 2004 have aimed to further strengthen and support the transition from school to post-school life. In alignment with NCLB (2002), the amendments sought to emphasize the importance of acquiring higher levels of academic skills, thus increasing access to post-secondary education for students with disabilities (Johnson, 2012). The requirement that an IEP team consider the courses of study beginning at age 14 has been removed. The current law still calls for transition planning based upon individual needs, preferences, and interests, but has added that IEP teams consider academic and functional strengths. IDEA 2004 also has required the development of appropriate and measurable post-secondary goals that must include training, education, employment, and, when necessary, independent living skills. Only one dissertation study (Landmark, 2009) has investigated the level of compliance with the more stringent transition requirements instated by the amendments of 2004. The results of this research have been published (hereafter Landmark & Zhang, 2012).

Landmark & Zhang (2012) examined (a) the extent to which the transition components of 212 IEP documents were compliant with IDEA; (b) the extent to which transition components provided evidence of best practices; (c) the association among disability, ethnicity, compliance, and best practices; and (d) the relationship between compliance and best practices. Although all are relevant considerations with regard to this proposed study, this portion of the literature review will address only the purposes related to compliance. The IEPs included were from students between the ages of 14 and 21 with identified developmental disabilities (37%), emotional disabilities (24%), or learning disabilities (39%), and attended secondary schools in a region of Texas.

Student ethnicity distributions for the participants included African American (38%), European American (38%), and Hispanic (25%).

The authors developed a data collection instrument based on existing instruments designed to gather demographic, compliance, and practices information. Related to compliance, the authors conducted three levels of analyses. First, descriptive analyses were utilized to determine the extent to which the IEP documents were compliant. Next, multiple logistic regression analyses were carried out to determine which independent variables (i.e., disability and/or ethnicity) predicted the five compliance variables. Finally, a Spearman's rho correlation was used to examine the relationship between composite compliance and practices variables. This section will describe the first two analyses and results.

The results of the first analysis showed that the mean composite score was 2.03. The range of possible scores was 0 to 5, with 0 indicating a complete lack of compliance for the component variables, and 5 indicating 100% compliance for the component variables. Therefore, the overall level of compliance was low. Fifty-seven percent of the IEP documents noted which of the IEP team members and agency representatives were invited to the meeting, as well as their subsequent contributions to the transition planning process. Landmark and Zhang (2012) revealed that just 41% of the IEPs met full compliance with regard to meeting the specific transition timelines outlined in IDEA. An evaluation of post-secondary goals showed that some of the IEP documents did not contain any annual goals to support transition to post-school education, employment, and independent living. Of those that did contain annual goals, only 45% of the goals were measurable.

The findings from the second analysis showed that disability and ethnicity influence certain areas of compliance. For example, the component compliance variable of Transition Services was found to be statistically significant for students with emotional disabilities. That is, that the IEPs of this group of students were less likely to be compliant in addressing all of the transition mandates of IDEA. This disability also impacted the possibility of finding evidence that all of the transition services (a) were addressed, (b) were aligned with post-secondary goals, and (c) were based on student needs, strengths, preferences, and interests. Regarding ethnicity, the IEPs of students who were African American were less compliant with regard to family involvement and employment preparation. Similarly, the IEP documents of students who were Hispanic were less compliant with regard to requirements pertaining to annual goals.

## **Summary**

The studies that have investigated the compliance with the transition component requirements of IDEA 1990, 1997, and 2004 have provided the field of special education with valuable information regarding the status of transition planning over the last 23 years. Yet, it is important to note that only one study has addressed compliance with IDEA 2004. Although the transition component requirements seem to have been poorly addressed, it does appear that incremental increases in the level of overall compliance have occurred over the years (Landmark & Zhang, 2012). For example, the attendance rates of students with disabilities at the transition planning IEP meetings recorded in the studies that examined compliance with IDEA 1990 and IDEA 1997 showed slight increases, which is a positive trend.

**Effect of student demographic characteristics on transition planning.** A limited number of studies (Blankenship, 2004; Getzel & deFur, 1997; Grigal et al., 1997;

Landmark & Zhang, 2012; Powers et al., 2005; Tillmann & Ford, 2001) have examined the impact of student demographic characteristics (e.g., disability and ethnicity) on transition planning, including the level of compliance with the transition mandates of IDEA. The results of these studies have shown that significant differences in transition planning for students exist, but the impact has not been fully examined (Powers et al., 2005). For example, anticipated post-school employment outcomes for students with significant disabilities have remained different than those for students with other disabilities. deFur and Getzel (1997) found that the majority of students with significant disabilities had segregated work environments listed as their primary post-school employment outcome. Almost 10 years later, Powers et al. found that when compared to students with learning disabilities (48.7%), students with physical disabilities (45.1%), and students with emotional disturbance (49.5%), students with developmental disabilities (10.4%) were much less likely to have an employment goal listed in their transition plan.

The collective findings from the studies included in this review seem to echo the sentiment expressed by Grigal et al. (1997) who concluded that “the results . . . suggest that the guiding philosophy of transition planning is one of minimal compliance, rather than adherence to quality programming and planning” (p. 368). Thompson et al. (2000) have cautioned that the underlying intent of IDEA cannot be realized without the presence of a strategically-designed transition plan that meets the transition component requirements of IDEA. As noted previously, even if schools meet the legal mandates for transition, a fully compliant IEP does not amount to quality transition planning, nor can it guarantee that a student will transition successfully to adulthood (deFur, 2003). It is,

however, considered “the cornerstone” of the transition planning process (Grigal et al., p. 358).

### **Evidence-Based Practices in Transition Planning**

Along with the federal legislative requirement to include transition services in the IEP, several initiatives that provided funding for research to identify effective practices in the area of special education transition simultaneously were established (Landmark et al., 2010). Accordingly, educators and experts alike recognized a number of so-called “best” practices (i.e., a number of specific recommendations for facilitating successful movement from school to adult life for youth with disabilities” (Greene, 2003, p. 155), although a large majority of the practices lacked empirical evidence to validate their claims (Cobb & Alwell, 2009; Peters & Heron, 1993).

In an effort to provide a solution to this issue, Kohler (1993) evaluated the existing best practices research to determine whether the practices had been empirically substantiated or implied by the authors. Kohler analyzed published research from 1985 to 1991 that was delimited by the following criteria: (a) the document focused on transition outcomes or practices for students with disabilities, and (b) there was supporting evidence between outcomes and a practice. The results indicated that only nine practices (i.e., vocational training, parent involvement, social skills training, paid work experience, follow-up employment services, employer input during transition process, integration or mainstreaming, daily living skills training, and employability skills training) were empirically substantiated. Kohler (1996) utilized these findings in order to create the Taxonomy for Transition Planning that conceptualized high quality transition programming as addressing five overarching areas: (a) student-focused planning, (b) student development, (c) family involvement, (d) program structure, and (e) interagency

collaboration. Student-focused planning activities include IEP development, student involvement, and planning strategies. Student development activities include life skills instruction, career and vocational curricula, structured work experiences, and assessment support services. Family involvement activities include family training, family involvement, and family empowerment. Program structure activities include program philosophy, program policy, strategic planning, program evaluation, resource allocation, and human resource development. Interagency collaboration activities include a collaborative framework and collaborative service delivery. Since its inception, this taxonomy has been accepted widely, and thus, used frequently as a framework for organizing identified practices that are part of comprehensive transition programs (Test, Fowler, et al., 2009).

Since the publication of this seminal review, the field of special education transition has experienced significant changes. Current federal legislation (e.g., IDEA, 2004 and NCLB, 2002) has impacted transition research and practices. IDEA 2004 has set forth the most stringent transition requirements to date in terms of data-based coordinated planning and reporting outcomes (Powers et al., 2005). The law has redefined transition services to reflect greater accountability for IEP teams to decide whether an outcome has produced or has the potential to produce positive results for transition-aged students with disabilities (Johnson, 2012). The alignment between IDEA 2004 and NCLB also has increased the accountability of states and school districts with regard to performance on standards-based assessments and post-school outcomes (Landmark et al., 2010). NCLB requires that students be proficient in core academic classes. Therefore, teachers spend the greatest amount of time on the curriculum on

which students will be assessed, and may deemphasize or even neglect the curriculum that is not tested (Fletcher, 2006; Williams-Diehm & Benz, 2008). This way of thinking could cause a serious dilemma for the field of special education.

To ensure that practices are based on more than just the recommendations of experts, the field of special education has been charged with the legal requirement of “including the use of scientifically based instructional practices, to the maximum extent possible” (IDEA, 2004, 20 U.S.C. § 1400 *et seq.*). In response to this need, the Council for Exceptional Children (CEC) formed a task force to “establish quality indicators for each methodology and to propose how evidence from each methodology could be used to identify and understand effective practices in special education” (Odom et al., 2005, p. 138). One of the outcomes of the task force was a special issue of *Exceptional Children*. In the first article, Odom et al. referred to practices grounded in quality research as “evidence-based.” Since then, educational research in the field of special education has shifted to focus on identifying evidence-based practices, although experts in the area of transition have noted that little of the research has been related to transition.

In the most recent review of the special education transition literature, Landmark et al. (2010) sought to extend the work of Kohler (1993) to determine whether any other practices have been substantiated. Their review yielded a total of 18 new documents that met the criteria defined by Kohler. The practices that were linked to positive post-school outcomes were categorized by the substantiated practices originally identified. If a practice had not been identified previously (e.g., self-determination training), a new category was created. The authors also decided to combine two of the categories into

one (i.e., vocational training and employment skills training were renamed vocational/employment skills training) because of similarities between the practices. Therefore, the resulting categories, from most-to-least substantiated practices (as determined by the total number of documents that provided evidence of the practice), included: (a) paid or unpaid work experience, (b) employment preparation program participation, (c) general education inclusion, (d) parent/family involvement, (e) social skills training, (f) daily living training, (g) self-determination training, and (h) community/agency collaboration.

Landmark et al. (2010) advised that their review was completed for “historical comparison purposes” (p. 172). Indeed, because most of the included studies were descriptive, not experimental, they did not meet the rigorous quality indicator standards that were presented in the special issue of *Exceptional Children*. The researchers also noted that educational research greatly emphasizes the efficacy of evidence-based practices. However, only a few researchers (Cobb & Alwell, 2009; Test, Fowler, et al., 2009; Test, Mazzotti, et al., 2009) have begun to summarize the small number of transition studies that have met the rigorous quality indicator standards.

Cobb and Alwell (2009) completed a systematic review of the literature to explore the relationship between the transition planning/coordinating practices and transition outcomes for students with disabilities between 13 and 22 years of age. Included studies met the scientifically based research standards (e.g., measured effects). Their review focused on 31 studies that employed practices across all five substantive sets of school-related transition services posited in the *Taxonomy for Transition Planning* (Kohler, 1996). The results confirmed that student-focused planning and student-

development activities enhanced the transition from school to post-school. However, it was not possible to evaluate the efficacy of family involvement, program structure, or interagency collaboration activities due to a lack of studies that met the new, more rigorous research standards.

Test, Fowler, et al. (2009) carried out a comprehensive review of the literature in order to identify evidence-based practices in transition. To structure their review, the researchers utilized the quality indicators and guidelines for determining the efficacy of practices described in the special issue of *Exceptional Children*. Sixty-three studies that met the criteria for high- or acceptable-quality group or single subject intervention studies, or were a comprehensive literature review or meta-analysis were selected and reviewed. The 32 evidence-based practices that emerged from the review were classified according to the Taxonomy for Transition Planning (Kohler, 1996). Overall, the majority of identified practices related to student development activities that included the instruction of specific skills (e.g., teaching functional reading and math skills), and were supported with a moderate level of evidence. Only two practices were supported with a strong level of evidence (i.e., teaching life skills, teaching purchasing skills). No practices were identified in the area of interagency collaboration.

Although the evidence-based practices identified from the experimental research (Test, Fowler, et al., 2009) were developed to teach students with disabilities valuable skills, Test, Mazzotti, et al. (2009) noted that none of the research has measured the actual impact of specific skills on post-school outcomes. Therefore, Test, Mazzotti, et al. conducted a review of the correlational literature in transition to identify evidence-based practices that predict improved school outcomes in education, employment,

and/or independent living. Their review included 22 articles that met the criteria for correlational research. The findings yielded 16 predictor categories correlated with improved post-school outcomes (i.e., career awareness, community experiences, exit exam requirements/high school diploma status, inclusion in general education, interagency collaboration, occupational courses, paid work experience, parental involvement, program of study, self-advocacy/self-termination, self-care/independent living, social skills, student support, transition program, vocational education, and work study. All 16 of the identified evidence-based practices significantly correlated with employment, 11 with education, and 5 with independent living.

For this proposed study, the review of the literature further extends the original work of Kohler (1993), and the more recent work of Landmark et al. (2010) to include additional published research on substantiated best practices in transition in the past few years (i.e., 2010-2013). However, given that new legislation has led to major changes in research (i.e., quality indicator standards, evidence-based practices), the results from the research of Cobb and Alwell (2009); Test, Fowler, et al. (2009); and Test, Mazzotti, et al. (2009) are included to ensure a comprehensive review.

Therefore, to conduct this review, the 29 documents identified by Landmark et al. (2010), which included the documents from the original review, were collected. Next, searches of ERIC and PsychINFO, along with a search of Google Scholar, were conducted to obtain any documents published since the last review was published. The resulting documents were reviewed on three occasions to assure that those articles selected for inclusion in the current review met the same criteria set forth by all previous researchers. This resulted in the addition of three documents that further support

substantiated best practices in transition. Finally, the documents by Cobb and Alwell; Test, Fowler, et al.; and Test, Mazzotti, et al. were collected.

The practices linked to positive post-school outcomes have been categorized according to the substantiated practices that Landmark et al. (2010) adapted from Kohler (1993). Therefore, the resulting eight practices include: (a) paid or unpaid work experience, (b) employment preparation program participation, (c) general education inclusion, (d) parent/family involvement, (e) social skills training, (f) daily living training, (g) self-determination training, and (h) community/agency collaboration. The practices are organized from most-to-least substantiated practices (as determined by the total number of documents that provided evidence of the practice). A synthesis of the literature pertaining to each practice is described in the subsequent section.

### **Paid or unpaid work experience**

The most substantiated best practice has consistently been work experience (Kohler, 1993; Landmark et al., 2010; Test, Mazzotti, et al., 2009). Work experience for high school students with disabilities has been defined as a part-time or summer job/internship in an unskilled or semi-skilled entry-level occupation (Sitlington & Frank, 1990) with minimal to no compensation and benefits, and little chance for advancement (Hasazi, Johnson, Hasazi, Gordon, & Hull, 1989; Fourquarean, Meisgeir, Swank, & Williams, 1991). The primary goal of work experience is to allow students with disabilities the opportunity to develop basic job skills, as well as workplace social skills that are transferable to other occupational settings (Benz, Yovanoff, & Doren, 1997; Lindstrom & Benz, 2002). In addition, Fourquarean et al. noted that students with previous job experience not only are able to cope better with job demands, but will also have an opportunity to identify the types of jobs that they might enjoy post-school.

Research has found that exposure to multiple work experiences or part-time employment (e.g., 10 hours per week) during high school predicts future employment for students with mental retardation (Hasazi et al., 1985), for students with emotional disturbance (Sample, 1998), as well as students with a visual impairments (Giesen & Cavanaugh, 2012; McDonnall & Crudden, 2009). A paid employment experience during high school also has proven to effect post-school employment outcomes for minority students with disabilities in urban areas (Fabian, 2007). Additionally, post-school outcomes of successful employment are similar regardless of whether work experiences are paid or unpaid (Colley & Jamison, 1998; Karpur, Clark, Caproni, & Sterner, 2005). Previous literature suggests that students who participate in work experiences or job sampling during high school have more refined vocational and social skills than students who receive only in-school transition services (Phelps & Hanley-Maxwell, 1997).

Test, Mazzotti, et al. (2009) identified paid employment/work experience as a predictor for both education and employment supported by moderate levels of evidence. Cobb and Alwell (2009) also noted that work experiences provide students opportunities to learn skills beyond specific job skills. For example, work experiences offer an opportunity for students to work on socialization with coworkers.

### **Employment preparation program participation**

The next most substantiated practice in transition is participation in an employment preparation program. While specific components of individual programs may vary, some common aspects of employment preparation programs (e.g., employment training and vocational education) have been linked to greater post-school employment options. Research has concluded that school completion rates and post-

school employment have been affected positively by participation in such a program (Benz et al., 1997; Colley & Jamison, 1998; Hasazi, Gordon, & Roe, 1985; Hasazi et al., 1985). In fact, some students have even reported valuing their vocational education courses more than other courses in preparing them for their future (Mithaug, Horiuchi, & Fanning, 1985). Thus, research has shown that students who participated for at least three semesters in a program were significantly more likely to be working full-time one year after exiting high school (Flexer, Davison, Baer, Queen, & Meindl, 2011).

Findings from studies that examined participation in aspects of an employment preparation program for specific populations have contributed to establishing this practice. Through an analysis of case study data, Lindstrom and Benz (2002) found that participation in vocational education resulted in young women with disabilities successfully achieving their occupational and career goals. Fabian (2007) researched the factors associated with minority students with disabilities securing post-school employment. The results confirmed those of previous studies that found that students with disabilities who participated in an employment preparation program had a higher probability of employment (Baer et al., 2003; Colley & Jamison; Hasazi et al., 1989) or engagement in post-secondary education (Benz et al., 1997; Wolffe & Kelly, 2011).

These findings confirm that employment preparation program participation is an evidence-based practice that supports post-school employment (Test, Mazzotti, et al., 2009). Test, Fowler, et al. (2009) found that teaching job-specific employment skills, undoubtedly an activity that would be included in an employment preparation program, are supported by a moderate level of evidence based on a small number of high-quality studies. Cobb and Alwell (2009) also identified moderate support for student develop

as it relates to student identification of vocational interests when provided with vocational education and employment training.

### **General education inclusion**

A growing body of research has indicated that the participation of students with disabilities, including those with extensive support needs (e.g., students with mental retardation, autism, or multiple disabilities) in the general education context (i.e., the least restrictive environment) and in the general curriculum has the potential to enhance post-school outcomes (Benz et al., 2000; Colley & Jamison, 1998; Gill & Edgar, 1990; Hudson, Schwartz, Sealander, Campbell, & Hensel, 1988; McDonnall & Crudden, 2009; Rabren, Dunn, & Chambers, 2002; Test, Mazzotti, et al., 2009; Williams-Diehm & Benz, 2008; Wise & Matthews, 1987). Students served exclusively in an inclusive educational setting, and who exited school with a diploma, as opposed to a certificate, were found to have higher levels of employment one year after school completion (Benz et al.; Hudson et al.; Rabren et al.; Test, Mazzotti, et al.; Williams-Diehm & Benz; Wise & Matthews). The possibility for being enrolled full-time in post-secondary education also was greater (Flexer et al., 2011). In addition, students were more likely to live independently (Test, Mazzotti, et al.), and to have experienced increased community involvement (Colley & Jamison), including greater participation in recreation and leisure activities (Williams-Diehm & Benz).

### **Parent/family involvement**

Involving parents or other family members in transition planning practices was identified as a substantiated practice in this review. Lindstrom and Benz (2002) found that families play a key role in shaping the occupational aspirations of young women with learning disabilities. Further, during the career development process, parents or

other family members who had high expectations, and in turn, provided encouragement and advocacy to the young women, reinforced their success in achieving desired career goals. Fourqurean et al. (1991) additionally noted that students whose parents were involved actively in educational planning, as measured by the percentage of IEP meetings that were attended, experienced greater post-school employment stability. These findings were confirmed by Schalock et al. (1986) and Schalock, Holl, Elliott, and Ross (1992) who determined that students with moderate to severe disabilities whose families were moderately to highly involved in the transition planning process had enhanced employment and independent living outcomes. Heal, Gonzalez, Rusch, Copher, and DeStefano (1990) also found family support to be a contributing factor in the successful, long-term employment of students with mental retardation. Parent/family involvement in educational planning additionally has shown better community adjustment for students with emotional disturbance (Sample, 1998).

Cobb and Alwell (2009) located a number of research-based studies that linked this practice to positive post-school outcomes. Likewise, Test, Fowler, et al. (2009) noted that all of the activities associated with Family Involvement are supported currently with a moderate or potential level of evidence. Test, Mazzotti, et al. (2009) identified parental involvement as a practice supported by a potential level of evidence. Collectively, all of these findings add to the body of research supporting parent/family involvement as an evidence-based practice that impacts student academic achievement and post-school transition outcomes.

### **Social skills training**

The ability to interact effectively with others is crucial to success across transition outcome areas (Wagner, Newman, Cameto, Garza, & Levine, 2005). Test, Fowler, et

al. (2009) noted that social skills training is a critical student development activity supported with a moderate level of evidence. Therefore, providing social skills training to students with disabilities is substantiated practice. Findings from the NLTS2 have reported that 16% of students with disabilities have high social skills, and 22% have low social skills. Although social skills are reportedly problematic for all disability categories, low social skills ratings appear to be most commonly identified in students with emotional disturbance.

Research has identified that higher social skills relate to more positive employment outcomes among students with disabilities (Benz et al., 1997; Heal et al., 1990; Test, Mazzotti, et al., 2009; Wagner et al., 2005). Benz et al. (1997) found that students were 2 or 3 times more likely to be competitively employed 1 year out of school if they exited school with high social skills ratings. Heal et al. (1990) also found that one of the most critical factors that contributed to post-school employment for students with mental retardation was the social ability of the student. In addition to post-school employment outcomes, Heal, Rubin, and Rusch (1998) determined that social skills significantly contributed to the likelihood that a student was living independently during the first 5 years post-school.

### **Daily living training**

These skills have been defined as “those skills or tasks that contribute to the successful, independent functioning of an individual in adulthood” (Cronin, 1996, p. 54). They can include personal, self-care skills (e.g., grooming), as well as domestic or home-keeping skills (e.g., cleaning). More recently, these skills have expanded to include health care needs (Repetto, Jaress, Lindsey, & Bae, 2013). Possession of these skill sets has been found to predict independent living post-school (Heal et al.,

1998; Test, Mazzotti, et al., 2009; Wagner et al., 2005). Additionally, Test, Fowler, et al. (2009) noted that of the 32 evidence-based practices identified in their review, that 1 of 2 practices supported with a strong level of evidence was teaching life skills. Alwell and Cobb (2006) conducted a meta-analysis of 50 scientifically-based research studies focused on the effects of interventions used to in teaching life skills to students with disabilities and found that a variety of interventions have been proven effective.

### **Self-determination training**

Self-determination was not included the original review by Kohler (1993), although it has since been identified as a substantiated practice by experts in the field of special education. According to Wehmeyer (2005), self-determination occurs when a person makes choices or decisions that improve the overall quality of life. During self-determination training, students with disabilities are given explicit instruction on skills such as decision-making; problem solving; goal setting; self observation, evaluation, and reinforcement; and student-directed learning. Training in these skill sets has been shown to improve post-school outcomes in the areas of education and employment (Benz et al., 2000; Gerber, Ginsberg, & Reiff, 1992; Lindstrom & Benz, 2002; McDonnell & Crudden, 2009; Test, Mazzotti, et al., 2009).

In a study of adults with learning disabilities, Gerber et al. (1992) found that internal motivation, or what they termed “control,” (i.e., self-determination) was a critical variable that promoted high levels of employment success. Lindstrom and Benz (2002) investigated the key elements influencing career choices for young women with learning disabilities who had graduated from high school and entered the workforce. Results showed that self-determination skills manifested in the women’s ability to set and achieve goals despite personal adversity. Similarly, Benz et al. (2000) found that

completion of student-identified transition goals that are personally meaningful was associated high with improved school completion rates, and thus, higher rates of post-secondary education and employment.

### **Community/agency collaboration**

Community and/or agency collaboration has remained the least substantiated practice in transition across all of the reviews, with only two identified supporting studies. Heal et al. (1990) compared 54 matched pairs of students with mental retardation to determine contributing success factors of post-school employment. Each pair was comprised of a student who was gainfully employed for 10 or more hours per week for a minimum of six months, and a student who was unemployed. The study found that one of the most critical factors that contributed to post-school employment was follow-up support provided by a job placement agency. Similar findings were found in the study conducted by Benz et al. (1997) who examined components of school-to-work transition programs to determine the components that predicted better post-school outcomes for students with disabilities. The study found that students were more likely to experience competitive employment when employment support was continued for one year after exiting high school. Test, Mazzotti, et al. (2009) identified two correlational studies (i.e., Bullis, Davis, Bull, & Johnson, 1995; Repetto, Webb, Garvan, & Washington, 2002) to support community and/or agency collaboration, although the level of evidence was characterized as potential (i.e., lacking sufficient evidence). In their respective reviews, Cobb and Alwell (2009) and Test, Fowler, et al. (2009) found no evidence that supported this practice.

## Summary

Although the results of this review have provided evidence for the eight identified practices (i.e., paid or unpaid work experience, employment preparation program participation, general education inclusion, parent/family involvement, social skills training, daily living training, self-determination training, and community/agency collaboration) in transition that have been found to promote greater achievement of post-school outcomes, as with any research, there are limitations. For the current review, it is important to remember that the organization from most-to-least substantiated practices (as determined by the total number of documents that provided evidence of the practice) does not prove that one practice is more effective than other, but simply that some practices have been researched more extensively than other practices. For example, paid or unpaid work experience has remained the most frequently substantiated practice, with 2 of the 3 added studies (i.e., Flexer et al., 2011; Giesen & Cavanaugh, 2012) providing additional support of this practice. It may also mean that more recent research reflects the current educational environment. Self-determination training is a practice that was not included in the original review (Kohler, 1993), but is now a practice often addressed in research. Another finding from this review was that general education inclusion “moved” to the third most substantiated practice, which may have occurred in response to the significant changes that field of special education transition has experienced of late, including the impact of federal legislation initiatives.

Also relevant are the changes in special education research. Specifically noteworthy was the establishment of quality indicators and guidelines for identifying and understanding effective practices in special education (i.e., evidence-based practices).

As a result, a few researchers (Cobb & Alwell, 2009; Test, Fowler, et al., 2009; Test, Mazzotti, et al., 2009) have begun to summarize the small number of transition studies that have met the rigorous quality indicator standards. The results of this research have been included in this review to ensure a comprehensive review that address both descriptive and experimental studies.

**Compliance and evidence-based practices.** Four studies (Blankenship, 2004; Grigal et al., 1997; Landmark & Zhang, 2012; Powers et al., 2005) have been conducted that examined both compliance in transition planning practices and incorporation of evidence-based practices in transition planning documents. In addition to the examination of the transition components of the IEP documents of 94 students with mild mental retardation, moderate mental retardation, learning disabilities, and emotional/behavior disorders who were between the ages of 18 and 21, Grigal et al. also sought to find evidence of best practices. The findings indicated little incorporation of best practices. Students with learning disabilities or emotional/behavioral disorders participated in vocational education courses with their peers without disabilities. Students with mild or moderate mental retardation were included less often in work experience in community settings.

Blankenship (2004) addressed parent/family involvement as a promising practice. The results of this dissertation study indicated that although parents were in attendance at 100% of IEP meetings, that their level of participation was rated as passive. Because parents were not seen as collaborative partners, their input regarding agreement with the developed transition plan was not considered. This finding is surprising considering that research has found that involving parents or other family

members in transition planning practices enhances academic achievement and post-school outcomes (Fourqurean et al., 1991; Lindstrom & Benz, 2002; Schalock et al., 1986; Schalock et al., 1992). Blankenship found that few positive collaborative partnerships between school personnel and agency personnel existed. Although IEP meeting attendance generally was high, there was only one IEP that indicated evidence of related goals or outcomes supported by the rehabilitation agency.

Powers et al. (2005) also reviewed IEPs for effective practices. Again, the findings indicated a lack of practices included in the documents. For example, self-determination training was included in the IEPs of very few students (6.5%) despite research that has shown that possession of self-determination skills can influence school completion rates, and accordingly, future participation in post-secondary education and employment (Benz et al., 2000). While a majority of students (56.4%) participated in work experience, it appeared that too often, students were placed in stereotypic occupations that were not reflective of the students' post-school employment aspirations.

Landmark and Zhang (2012) concluded that on average, the mean level of substantiated practices included in IEPs was moderate. Generally, only five of eight practices were apparent in the IEPs. There was evidence of community/agency collaboration in approximately 66% of IEPs. Community/agency collaboration was observed if: (a) agency representatives had contributed to the development of the transition plan, and/or (b) LEAs had provided community/agency information to the student and family. Parent/family involvement was noted in approximately 75% of IEPs. General education inclusion was evident in 46% of IEPs. General education inclusion

was observed if a student: (a) was educated in an inclusive classroom, (b) participated in state standardized assessments, and/or (c) completed the minimum curriculum and credit requirements and performed satisfactorily on exit-level assessments. There was evidence of student participation in paid or unpaid work experience in only 40% of IEPs. Approximately 75% of IEPs included a statement that a student had appropriate social skills or was receiving social skills training, while about 25% of IEPs included a statement that a student had self-determination skills or was receiving self-determination training. Most students were reported to have appropriate daily living skills or were receiving daily living training.

Landmark and Zhang (2012) found a moderate correlation between the overall level of compliance and overall level of evidence of practices. This relationship indicates that higher levels of compliance coincide with greater incorporation of substantiated practices. This finding is noteworthy considering that only some of the substantiated practices are required by IDEA 2004.

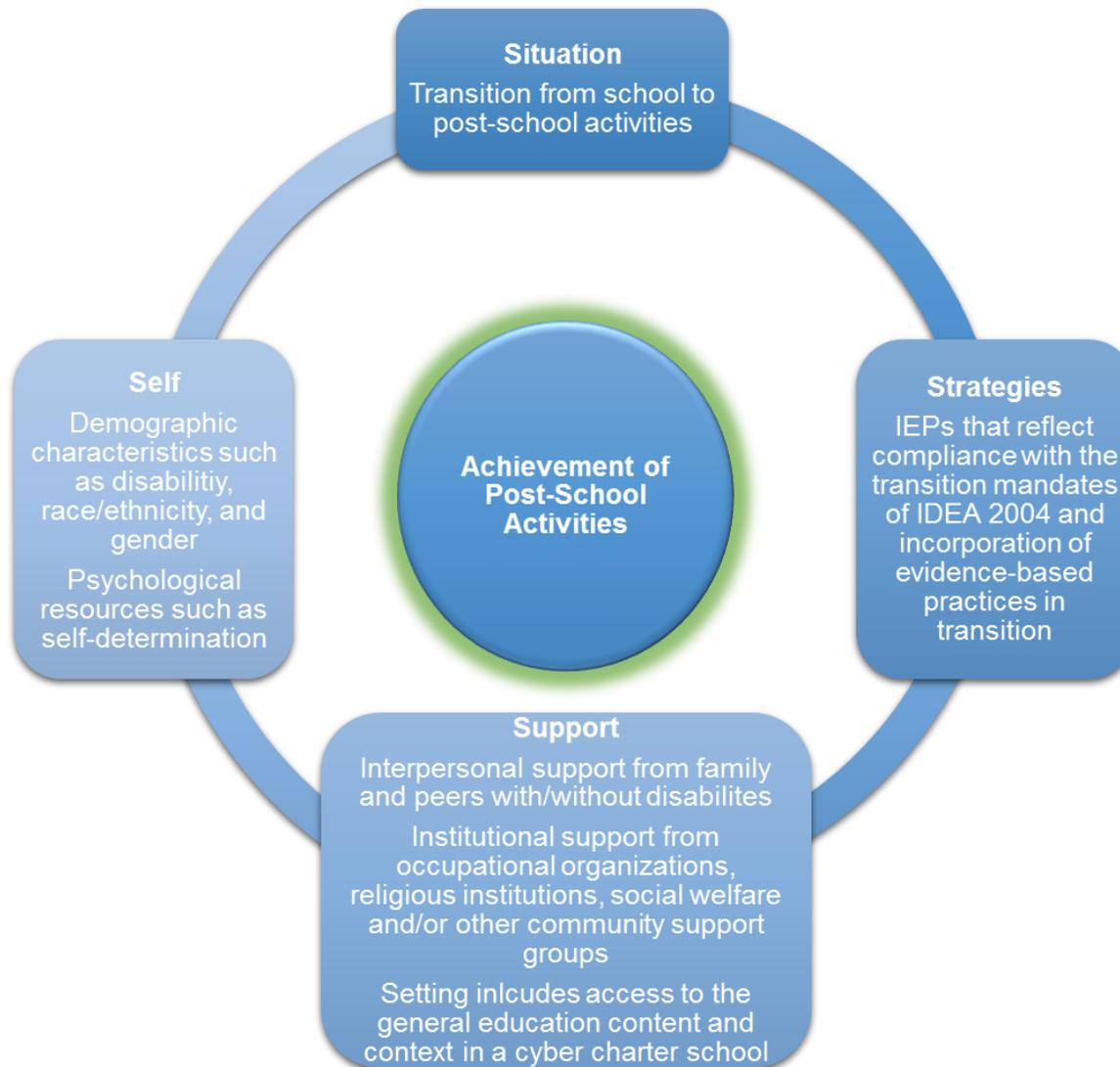


Figure 2-1. Influential factors of transition planning practices that support the achievement of desired post-school activities.

## CHAPTER 3 METHOD

The purpose of this chapter is to describe the methods and procedures that were used to conduct this study. Specifically, this chapter describes the following: (a) participants; (b) the data collection instrument; (c) the research design; (d) the independent variables; (e) the dependent variables; (f) the research procedures; and (g) the data collection and analysis procedures.

### **Participants**

#### **Population**

The population for this study was students with disabilities (e.g., specific learning disability, autism, other health impairment, emotional disturbance) between 14 and 21 years of age, who attended a public cyber charter school in Pennsylvania during the 2012-2013 school year. Pennsylvania was chosen because it is a large state located in the Northeastern and Mid-Atlantic region of the country that includes both urban and rural areas. It is the sixth most populous state in the nation. An estimated 81.9% of the population is White, 10.8% is Black or African American, 5.7% is Hispanic or Latino, and 1.6% is comprised of other racial/ethnic backgrounds (Pennsylvania State Data Center, 2010).

The most recent state data available representing students with disabilities between 14 and 21 years of age have indicated that 105,672 students received special education services during the 2011-2012 school year. Of these students, approximately 58.2% of students had a specific learning disability, 9.5% had an intellectual disability, and 12.1% had an emotional disturbance (PennData, 2012). For students with disabilities receiving special education between 6 and 21 years of age, 70% were

White, 18% were Black or African American, and 9% were Hispanic or Latino (PennData). Public cyber charter schools were chosen because a growing body of research has indicated that cyber schools extend equitable access to high-quality education to students from high-need urban and rural districts, low-achieving students, and students with disabilities (Hassel & Terrell, 2004; Rose & Blomeyer, 2007). Currently, there are 16 public cyber charter schools operating in the state of Pennsylvania (Pennsylvania Department of Education, 2012). Two of those schools granted permission for the present study to be conducted using IEP documents from their students. A description of each school follows in the subsequent section.

### **Program Descriptions**

A search of the school and state websites, along with an examination of the most recent formal annual report (i.e., 2010-2011), and an interview was carried out for each cyber charter school in order to develop comprehensive program descriptions. Yet, some general information that pertains in general to cyber charter schools first is discussed.

The types of cyber schools operating in North America vary quite a bit from state to state, school district to school district, and even from school to school (Barbour & Reeves, 2009). Currently, the most commonly accepted classification divides cyber schools into five categories including: (a) state-wide supplemental programs, (b) district-level supplemental programs, (c) single-district cyber schools, (d) multi-district cyber schools, and (e) cyber charter schools (Watson et al., 2004). The two cyber schools that participated in the present study can be classified as cyber charter schools, as they are fully online schools that work with students from across the state who primarily (often only) attend these schools via computer-based formats.

The Pennsylvania Department of Education maintains responsibility for the oversight of cyber charter schools, including approval of the initial charter, and decisions regarding renewal, non-renewal, or revocation of the charter. The Pennsylvania System of Cyber Charter Review (PASCCR), along with a school's annual report and original charter, are documents that provide explicit information regarding (a) how the school meets Pennsylvania's academic standards and assessment requirements, (b) what technical support will be given to students, (c) how student work will be monitored, (d) what type of communication will be held with students and parents, (e) and how often that communication will take place (Pennsylvania Charter School Law 24 P.S. §17-1741-A, 2006).

In Pennsylvania, a cyber charter school is recognized by the Department of Education as a public school. The schools are funded by state tax dollars and governed by the state public school, charter school, cyber charter school, and applicable local, state, and federal laws that include specific stipulations related to educating students with disabilities. Therefore, like traditional brick-and-mortar charter schools, cyber charter schools are required to provide a minimum of 900 hours of instruction per school year at the elementary level or 990 hours of instruction per school year of instruction at the secondary level. In addition, the diploma earned by a student that attends a cyber charter school is considered to be equivalent to any diploma earned from a traditional brick-and-mortar school within the state.

Cyber charter schools must abide by IDEA 2004. This federal legislation requires states accepting IDEA funds to provide FAPE to all eligible students in the LRE. Part B of IDEA and its implementing regulations, along with related state laws,

call for compliance with a number of detailed procedures concerning the provision of special education and related services in schools (Rhim, et al., 2007). However, the specific level of responsibility for providing special education services, the funding of the services, and special education program oversight depends on the legal status of each individual charter school (Ahearn, Lange, Rhim, & McLaughlin, 2001).

Within the public school system of Pennsylvania, all charter schools, including cyber charter schools, are considered to be their own LEA. As an autonomous entity, each school is responsible for providing a full continuum of placements for students with disabilities (Rhim et al.). In addition to IDEA, the schools must comply with other federal laws (e.g., No Child Left Behind (2002), Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (1990), and Family Educational Rights and Privacy Act (1974)) that govern the education of students with disabilities in public schools.

In accordance with Pennsylvania Charter School Law, all students are required to take the state standardized assessment in the areas of Math, Reading, Writing, and Science at the appropriate grade level. The schools are required to reach the NCLB (2002) accountability standards as set by the state. The schools must meet all state standards for AYP in relation to teacher certification and student achievement. In addition, as charter schools, annual reports must be provided to the state, and the charter must be renewed by the Pennsylvania Department of Education every five years.

The school must provide additional data that measures its work towards the federally identified indicators of compliance and performance as specified on the SPP. As mentioned previously, the SPP evaluates the state's efforts toward implementing the

requirements and purposes of IDEA, which includes an emphasis on transition planning practices so that students with disabilities are able to achieve their post-school goals. The Effective Transition monitoring priority includes three associated indicators. This proposed study is affiliated with only one, Indicator 13. In the state of Pennsylvania, Indicator 13 is measured through cyclical monitoring as the percent of students, age 14 and above, with IEPs that meet the identified transition requirements. The established target for Indicator 13 is 100% compliance. To ease the data collection process the Pennsylvania Training and Technical Assistance Network (PaTTAN, 2012) and the National Secondary Transition Technical Assistance Center (NSTTAC, 2012) have developed checklists to measuring compliance.

### **School A**

School A is a public cyber charter school that has been in operation serving students from both urban and rural counties for over a decade. In the 2010-2011 academic year, the school enrolled a total of 3,353 students in grades K-12. The racial/ethnic backgrounds of the students reflected those of the state, with 80% of students identified as White (Non-Hispanic), 11% of students identified as Black (Non-Hispanic), and 3% of students identified as Hispanic. Nearly 19% of students at the school came from low-income families. Students receiving special services accounted for 13% of all enrollments. It should be noted that the total number of students receiving special services is unduplicated and does not include students identified as gifted. This statistic is comparable with school age enrollment of students with disabilities for the state (i.e., 15%).

The mission of the school is to provide students with an education grounded in high-academic standards. The success of the school can be linked to its many

strengths including its unique program model and effective use of technology. These aspects of the school allow for learning to be personalized for every student.

**Model of partnership.** The core of the school is its education program model. This model represents the collaborative relationship between a learning coach, a teacher, a family support coordinator, and the curriculum. A learning coach (e.g., parent or other adult) commits to ensuring that a student logs into school, enters daily attendance, participates in online direct synchronous instruction, and completes assignments. A highly qualified, state certified general education teacher is responsible for identifying a student's learning objectives. The teacher then develops a student's personal learning plan with identified individual objectives and goals. The teacher also designs and directs synchronous and asynchronous instruction, authenticates learning, and monitors and assesses a student's academic progress and performance. A family support coordinator is assigned to each family with the primary responsibility of developing a program that will foster social development. This individual also may assist an individual family with other nonacademic issues. The family support coordinator implements school-wide programs to facilitate achievement of nonacademic goals by developing educational social outings for the students in varied geographic areas.

**Curriculum.** The school uses a comprehensive curriculum supplied by K12® Inc. The curriculum is built around core subjects. As a result, the continuity of instruction is maintained through the use of one curriculum. While K12 serves as the primary curriculum, other curricula can be used to meet the individual educational needs of students.

**Special education.** The Special Education Department adheres to federal and state laws and regulations regarding special education. Special education administration, faculty, and staff are charged with the task of providing students with disabilities appropriate accommodations and services. Every student with an IEP is assigned to a certified special education teacher. The special education teacher works in conjunction with a general education teacher, other staff, and a parent or guardian to ensure that the IEP is implemented for the student.

Students with disabilities are included in the LRE to the greatest extent possible, along with their peers without disabilities. Students with disabilities receive instruction from both a special education teacher and a general education teacher. Some students may need curricular modifications or adaptations to meet their individual learning needs. As previously mentioned, supplemental or alternative curricula can be used with students with disabilities on a case-by-case basis.

The school is able to meet the specific needs of its students through a continuum of services. Both special and general education teachers provide additional supports through synchronous instruction. The use of technology allows for innovative and individualized delivery of instruction while simultaneously freeing up the teachers to provide personalized support for students who need one-on-one attention or additional time. Furthermore, there are a variety of ways for students to access extra support, including but not limited to (a) an academic coach, (b) drop-in tutoring, (c) interactive software, and (d) assistive technology. Each student also receives the individualized support of his or her parent or guardian.

## **School B**

School B is also a public cyber charter school that has been in operation serving students from mostly urban counties for over a decade. In the 2010-2011 academic year, the school enrolled a total of 690 students in grades 6-12. The students at the school have racial/ethnic backgrounds similar to those of School A, with 84% of students identified as White (Non-Hispanic), 7% of students identified as Black (Non-Hispanic), and 5% of students identified as Hispanic. Students at School B are almost twice as likely as those from School A to live in or near poverty, with 36% of students coming from low-income families. Students receiving special services accounted for 10% of all enrollments. Again, it should be noted that this number is unduplicated and does not include students identified as gifted. This statistic is slightly lower than both School A (i.e., 13%), as well as the state average (i.e., 15%).

The mission of the school is to provide students with an individualized learning program that utilizes the latest information and communications technology. Students are able to develop higher order thinking and complex-problem solving skills while maximizing their achievement of Pennsylvania Academic Standards (PA Standards). Ultimately, the school wants its students to master essential content and skills while preparing them for their future goals.

**Student-centered approach.** School B focuses on a student-centered approach that allows teachers to create an individualized educational setting, both in curricular choices and the pace of instruction, in which students with a variety of strengths can achieve academic success. Student engagement in the learning process is spurred by a variety of methods. For example, teachers place great emphasis on the

real-world application of the skills that the students are learning in order to increase motivation by allowing students to see a connection to their own lives.

Communication creates a successful academic environment for all students. Students are encouraged to be familiar with their preferred mode of learning and to learn strategies using that style to complete assignments. This allows students to advocate for themselves and request alternative assignments and assessments based on their learning style. In addition, students are encouraged to self-advocate when they need further explanation, additional instruction, and accommodations and/or modifications to the curriculum.

Aside from their teachers, students communicate frequently with their assigned learning coach. The learning coach is a teacher at the school, although not necessarily one who will teach a specific content area to that student, who engages with a student in order to provide guidance and support. The learning coach communicates bi-weekly, if not more frequently, with a student. If a student is struggling, a learning coach may facilitate communication between the student and teacher, as well as assist the teacher in differentiating course content, instruction, and/or a particular assignment.

Based upon student needs and preferences, teachers integrate the use of virtual classrooms to introduce, discuss, and review instructional material. Students who choose not to, or who are unable to participate in the live version of the presentation are able to watch a recorded version at a later time. The major benefit of the online method of instructional delivery is the ability for students to process the information at their own pace without the demands, and/or stress of a real-time class setting. Even within the synchronous webcasts, students are able to process information and respond within

their individual comfort levels either through direct messaging or live audio. When collaborative activities are appropriate, the students may use a combination of discussion boards and/or live webcasts to present their information to a small group of their peers or the entire class. Participation in group projects and learning activities is flexible and based upon common needs and learning objectives rather than age or placement within a predetermined curriculum.

Outside of the classroom, students are able to socialize and build friendships with their peers through planned events, field trips, and participation in virtual clubs. Community events are held in selected cities across the state several times a month so that students and their families are able to connect with other students and their families, as well as some faculty and staff. During these events, students may play games or sports, and may receive tutoring services. Field trips are planned throughout the school year, and include visits to well-known historical sites, museums, and state parks located in the Northeast.

**Curriculum.** The curriculum for School B is unique because it has been developed by the school's own teachers. It is described as rigorous, online middle and high school curriculum designed to help students to achieve a well-respected transcript and diploma. The curriculum is aligned with PA Standards and follows a logical progression of concepts. Each department ensures that all of the standards are incorporated into all of the courses needed for students to attain mastery by employing curriculum maps that ensure vertical alignment of the standards being taught. In addition, the curriculum of each course is reviewed and updated at least every five years.

The curriculum allows for a high degree of individualization. Regardless of the content area, each course has incorporated rigorous reading, writing, and speaking assignments to ensure that students are able to demonstrate mastery in a variety of accepted formats. The school has developed recommended course progressions that enable students to participate in courses that are the most appropriate to their current level of academic development. In this way, an individual education program is built around the learning needs of each student.

The curriculum allows for various assessment methods to be used to collect student performance data, including (a) diagnostic, (b) benchmark, and (c) summative. Evidence of progress toward specific content goals and achievement of state standards is useful in planning for future instruction. The collection of on-going assessment data allows teachers to be responsive to the results. For example, teachers are able to identify students' individual learning needs in order to target them for additional support.

**Special education.** Students with disabilities have access to the Resource Room Virtual Office. This is a place for students to review and practice lessons, work through assignments, and check in with their teachers to ensure comprehension. Special education teachers are able to monitor student progress in the Resource Room Virtual Office and check on them consistently throughout the day.

The Special Education Department works collaboratively with highly qualified, state certified general education teachers. The school has provided continuous professional development opportunities centered on working with students with disabilities. A variety of topics have been addressed during these sessions including, (a) how to make modifications and/or accommodations to the delivery and/or

expectations of the curriculum, (b) what instructional strategies are most effective with students, and (c) what challenges those needs may present during class.

General education teachers are provided access to student IEP documents in order to ensure that they are working toward the annual goals of each student, as well as providing any modifications and/or accommodations within the general education classroom. Accommodations may include, but are not limited to, (a) extended time to complete assignments, (b) altering the length of an assignment, (c) reducing the number of assessments, and/or (d) providing an alternate means of assessment. General education teachers participate in IEP meetings and assist special education teacher in the writing and monitoring of IEP goals and objectives. In accordance with IDEA, students with disabilities who satisfactorily complete a special education program are granted and issued a standard high school diploma.

### **Sample**

To obtain as many observations as possible from the two participating cyber charter schools, all IEPs of students with disabilities between 14 and 21 years of age were included in this study. The IEPs of students who were 13 years of age at the implementation date were included as long as the student turned 14 before the services and programs expired. This sampling approach was preferred over a stratified sampling approach because it allowed the researcher to explore the transition planning practices in public cyber charter schools as they naturally occurred.

### **Data Collection Instrument**

The data collection instrument was adapted from existing instruments (Landmark, 2009; National Secondary Transition Technical Assistance Center [NSTTAC], 2012; Pennsylvania Training and Technical Assistance Center [PaTTAN],

2012) that assess compliance and evidence-based practices in transition planning apparent in the transition components of IEPs. Both NSTTAC and PaTTAN have developed data collection checklists for measuring compliance with Indicator 13. Although the instrument created by Landmark (2009) has been utilized in a study to examine compliance with IDEA 2004, a thorough review of IDEA was completed to confirm that the instrument utilized in the present study aligns with the most current reauthorization. In addition, resources from the Pennsylvania Department of Education regarding transition services provided to students with disabilities were examined to ensure compliance with state laws. A literature review of evidence-based practices in transition planning was completed and used to design the questions that assess whether or not such practices are included in the transition components of IEPs. Finally, a blank IEP was requested from School A and School B to guarantee that the content provided in the IEP document would allow for all of the questions to be answered, as well as to aid in the organization of the instrument for ease of completion.

The data collection instrument for the present study was designed to collect three types of information, including (a) demographic and descriptive, (b) IDEA compliance, and (c) use of evidence-based practices. The instrument contains 32 demographic and descriptive questions. The demographic questions collected information about the students (e.g., age, gender, and racial/ethnic background). Some of the demographic information that was not provided on the IEPs was collected on a separate spreadsheet (Data Collection). The descriptive questions collected information about the specific content of the transition components of the IEP document and process.

The instrument contains 25 IDEA compliance questions. These questions addressed the mandated transition component requirements for the IEP document and process set forth in IDEA 2004. The transition component requirements that were addressed consisted of (a) who attended and contributed to the meeting, (b) timelines, (c) measurable post-secondary goals, (d) appropriate transition services, and (e) measurable annual goals that enable achievement of post-secondary goals. While more than half of the IDEA compliance questions contained a dichotomous Yes or No response, others include a Not Applicable (N/A) response. The questions that included the N/A response were those that for a specific reason did not apply to the student.

The instrument contains 11 questions regarding the use of evidence-based practices in transition. The evidence-based practices that the questions sought to confirm included (a) paid or unpaid work experience, (b) employment preparation program participation, (c) general education inclusion, (d) parent/family involvement, (e) social skills training, (f) daily living training, (g) self-determination training, and (h) community/agency collaboration. Comparable to the IDEA compliance portion, the majority of the questions contained a dichotomous Yes or No response, one of the questions includes a N/A response, and a few of the questions had explicit response choices.

The data collection instrument was revised multiple times to ensure that the content and organization were clear. As a test of content validity, the instrument was emailed to a panel of four experts in the field of special education transition who have the knowledge and skill to assess whether the questions addressed defined content. Additionally, one expert in the field of distance education was asked to review the

instrument since it was used to evaluate IEPs from students with disabilities enrolled in a public cyber charter school. All of the experts responded. The researcher reviewed the feedback and made minimal changes to the instrument. For example, a minor change was made to question D8 regarding who attended the IEP team meeting by including the clarification that an individual was considered present by attending the meeting in person, conference call, written input, and/or Blackboard Collaborate session.

Next, the researcher used a randomly selected IEP from the sample in order to practice rating with the instrument. This allowed the researcher to identify areas for revision. A small number of changes were made to the instrument. For example, question C3 was expanded to include sub questions A through C to justify a lack of agency involvement at the IEP meeting. This change was made in order to accurately reflect the existing instrument that assesses compliance with Indicator 13 in Pennsylvania (PaTTAN, 2012). A note for clarification was added to question C5 to address that the IEP of a student who was 13 years of age at the implementation date could be included in the study as long as he/she turned 14 during the anticipated duration of the services and programs noted in the document. The final version of the data collection instrument, Cyber Charter IEP Data Collection Instrument, is available in Appendix A.

### **Research Design**

The study used a quantitative research design to assess the characteristics of transition planning programs in public cyber charter schools. Three types of analyses were employed including, (a) descriptive statistics, (b) multiple logistic regression, and (c) correlation coefficient of the compliance and evidence-based practices composite

scores. First, descriptive statistics were utilized to provide a summary of the independent and dependent variables of the study. Next, multiple logistic regression was undertaken to investigate the predictive power of each of the independent variables on each of the dependent variables using the concept of odds. Multiple logistic regression is used when the dependent variable is dichotomous and there are more than one independent variable (Huck, 2008). Finally, the correlation coefficient was calculated to examine the relationship between the compliance and evidence-based practices composite scores. Specifically, a Pearson's product-moment correlation was employed. This bivariate correlational procedure is useful when (a) each of the two variables is quantitative in nature and (b) each variable is measured to produce raw scores (Huck).

### **Independent Variables**

The independent variables for the study included disability category, racial/ethnic background, gender, and grade level. Because the researcher reviewed blank IEPs from both of the participating schools, it was expected that particular student demographic data would not be provided readily on the IEPs. As such, the researcher asked the designated contact at each school to enter the requested data into a separate spreadsheet (Research Procedures, Data Collection).

The student's primary disability category, and if applicable, secondary disability category, was/were identified out of the fourteen categories consistent with IDEA 2004. Racial/ethnic background was identified as one of the six categories reported in the annual reports of the schools. There was also an option for a racial/ethnic background category not included on the data collection instrument to be marked as other. Gender

was identified as either male or female. Grade level was identified as the current grade noted at the most current IEP team meeting in which transition was discussed.

Because data was collected from two contextually different cyber charter schools, it was the expectation of the researcher that some variance likely would occur. Therefore, the group variable of school was included as a covariate. This was done so that the researcher was able to control for differences in the model.

### **Dependent Variables**

The dependent variables on which data were collected included, (a) IDEA compliance variables, (b) evidence-based practices variables, and (c) a compliance and evidence-based practices composite variable. The IDEA compliance variables addressed (a) who attended and contributed to the meeting (i.e., C1 and C3); (b) timelines (i.e., C2 and C5); (c) measurable post-secondary goals (i.e., C8, C9, C11, C12, C14, and C15); (d) appropriate transition services (i.e., C5, C6, C16, C17A-D, C19, C20, C21, and C22); and (e) measurable annual goals that enable achievement of post-secondary goals (i.e., C7, C10, C13, and C18). The evidence-based practices variables addressed (a) parent/family involvement (i.e., P2); (b) community/agency collaboration (i.e., P3); (c) employment preparation program participation (i.e., P4); (d) paid/unpaid work experience (i.e., P5); (e) social skills training (i.e., P7); (f) self-determination training (i.e., P8); (g) functional, daily living skills training (i.e., P9); and (h) general education inclusion (i.e., P1, P6, P10, and P11). The final variable was a composite of IDEA compliance and evidence-based practices.

## **Research Procedures**

### **Data Collection**

Two public cyber charter schools in Pennsylvania were identified as examples of cyber schools that have succeeded in serving a large number of students with disabilities in online programs. The Chief Executive Officer (CEO) of one cyber charter school who had collaborated previously on a research project was contacted via email in order to seek approval for conducting the current study using IEPs from the students at the school. An email response sent by the CEO confirmed participation of the school, and asked that a phone call be scheduled in order to address some concerns regarding the logistics of the study. During the call, it was requested by the researcher that the CEO provide suggestions of cyber charter schools as potential sites for additional data collection. The CEO named three additional cyber charter schools within the state.

A search of the school websites and annual reports was conducted for each of the three cyber charter schools in order to determine whether or not each school would be appropriate for the purposes of the study. It was determined that all three schools should be contacted. A formal letter was emailed to the CEO of each school. A sample of the letter used during this phase of the study is included in Appendix B. Exactly one week after sending the email, a follow-up phone call was made and another email was sent because no responses had been received. The CEO of one of the schools was the only individual to respond. After an informal email exchange, the CEO confirmed participation of the school.

Before the study began, approval from the Institutional Review Board (IRB) of the University of Florida was secured. This study was determined to be exempt. Because charter schools in Pennsylvania are legally considered to be their own LEA, there was

no need to gain approval to conduct the study by any additional research committee for either cyber charter school. Once permission to conduct this study was granted, the researcher contacted the CEO to be connected with the appropriate personnel to collect the IEP documents. At School A, the contact person was the Assistant Director of Special Education. At School B, the contact person was the Special Services Coordinator.

With the assistance of these individuals, the IEPs from the 2012-2013 school year were collected and copied. To ensure confidentiality of student identity, all of the IEPs from each school were assigned a distinct identification code. The name of each student and subsequent identification code were entered into a Microsoft Excel spreadsheet. An example of the Student Identification Codes spreadsheet is available in Appendix C. Once complete, the spreadsheet was printed and held by the identified contact person at each school. The electronic version of the spreadsheet was deleted permanently from the computer. On a separate spreadsheet, the identification codes were repeated, so that demographic data that was not provided on the IEP (e.g., disability category, ethnicity, and gender) could be collected for each student. This spreadsheet was emailed to the researcher. An example of the Student Demographic Characteristics spreadsheet is available in Appendix D.

After each identification code was written on the corresponding IEP, all identifying information on the copied IEP was obscured by marking through it with a black Sharpie® permanent marker. An email was received from the contact at each school with the specific dates on which the researcher was permitted to visit the main office. The researcher traveled to Pennsylvania to collect the IEPs in May and June.

After all of the IEPs were collected, the researcher used the instrument in order to collect data from each document. In order to be certain that the data was collected with reliability, the researcher trained a second rater to use the data collection instrument. The second rater has a specialist degree in special education, as well as former experience as a secondary teacher. The researcher went through the instrument and provided notes on any questions that might have been difficult to score. The second rater was given a randomly selected IEP from the sample in order to practice rating with the instrument. The second rater had an opportunity to ask questions, and responses were provided for clarification. The IEP was then randomly returned to the sample that was given to the second rater. Then, the researcher and the second rater scored the IEPs independently of each other.

To quantify the degree of consistency among the raters, the researcher computed an index of inter-rater reliability. The two most commonly used procedures for this purpose are percentage of agreement and correlation (Hayes & Hatch, 1999). The percentage of agreement measure is the number of agreements divided by the total number of rating occasions (Huck, 2008). Because of its simplicity, some methodologists have argued that this is not the most rigorous measure because chance agreement is not considered in the total agreement score (Hayes & Hatch).

Cohen (1960) proposed the kappa coefficient to address this limitation of percentage of agreement. Cohen's kappa coefficient is the proportion of agreement actually observed between raters, after adjusting for the proportion of agreement expected by chance. Kappa values can range anywhere from -1.0 to +1.0. Kappa values greater than or equal to 0.70 indicate an acceptable level of agreement.

For the study, 25% of the total sample of IEPs ( $n = 60$ ) was selected randomly for the calculation of inter-rater reliability measures. That is, the researcher and the second rater both scored the same set of 60 IEPs independently of each other so that reliability could be measured. Cohen's kappa coefficient was calculated for each rating of the individual questions of the instrument. The statistic evaluated the agreement across raters in terms of 25 out of 32 demographic and descriptive questions, all IDEA compliance questions, and all evidence-based practices questions. Because dichotomous responses (i.e., Yes and No) were used on the data collection instrument, an unweighted kappa coefficient was used.

The results of these calculations can be found in Table 3-1 at the end of the chapter. Kappa values were calculated for 91 items on the instrument. For the remaining 95 items, Kappa values were not calculated because at least one variable in each 2-way table upon which measures of association were computed was a constant. For these items, a percent of agreement was calculated and reported. Kappa values reported at .70 or below were identified as areas of low inter-rater reliability.

The researcher and the second rater met to discuss the identified 11 items of disagreement until an agreement was reached. For example, the discussion of question C8 led to a consensus between the raters that in order to consider an education/training goal as measurable, the goal must meet at least two standards. First, a measurable post-secondary goal should refer to a goal that can be achieved after leaving secondary school. Second, a measurable post-secondary goal is an outcome statement, not the process of pursuing or moving toward a desired outcome. After discussing all items of disagreement, the second rater rescored those items.

It was also appropriate to address the reliability of the data collection instrument as a whole using a summed score. Therefore, the intraclass correlation coefficient (ICC) was considered as the final method to address reliability. This statistical procedure can be used for reliability purposes to evaluate agreement after accounting for the variance caused by multiple raters (Huck, 2008). That is, in some cases of data patterns with high correlations and low absolute agreement between raters, ICC is beneficial because it considers both the nature of consistency and absolute agreement of data. ICC is similar to other reliability procedures in that the researcher desires to end up with a value as close to +1.0 as possible. ICC values greater than or equal to 0.80 indicate an acceptable level of agreement. However, it differs in that several ICC procedures exist.

Shrout and Fleiss (1979) have provided guidelines for choosing among the six different forms of ICC. For this study, one of the ICC models was chosen. ICC (3, 1), the two-way mixed model, was employed to evaluate the consistency of ratings when raters are considered fixed effects, and thus ignoring rater variance. ICC values were calculated for the compliance questions and the evidence-based practices questions. The results of these calculations can be found in Tables 3-2 through 3-5 at the end of the chapter. These results indicate acceptable reliability levels. In addition, it can be concluded that the compliance and evidence-based practices total scores can be used in the main analysis to provide trustworthy results.

### **Data Analysis**

Once inter-rater reliability was established, the researcher and the second rater continued scoring IEPs. The researcher scored 136 IEPs and the second rater scored 100 IEPs. After all of the IEPs were processed, the data was transformed for analysis.

A codebook that corresponds with the data collection instrument was created so that the data collected from the documents could be organized utilizing Microsoft Excel. The final version of the codebook is available in Appendix E. Data analysis was conducted with Statistical Package for the Social Sciences (SPSS) version 21.0.

The purpose of this study was to determine (a) the characteristics of transition planning programs in public cyber charter schools by exploring the extent that the transition components of the IEP documents reflect compliance with the transition mandates of IDEA and incorporation of evidence-based practices in transition; (b) the impact of individual demographic characteristics (i.e., disability category, racial/ethnic background, gender, and grade level) on the transition planning programs in public cyber charter schools by exploring the relationship between characteristics and the level of compliance with the transition mandates of IDEA and the relationship between characteristics and the level of incorporation of evidence-based practices in transition; and (c) the relationship between compliance with the transition mandates of IDEA and incorporation of evidence-based practices in transition.

### **Research Questions**

The study addressed the following research questions:

**RQ 1.** What are the characteristics of transition planning practices evident in the IEPs of public cyber charter schools?

**RQ 1a.** To what extent do the transition components of the IEPs reflect compliance with the transition mandates of IDEA 2004?

**RQ 1b.** To what extent do the transition components of the IEPs reflect incorporation of evidence-based best practices in transition?

**Hypothesis 1.** This question does not have a corresponding hypothesis. Descriptive statistics were utilized to provide a summary of the characteristic of transition planning programs in public cyber charter schools.

**RQ 2.** How do the demographic characteristics of students with disabilities impact transition planning practices evident in the IEPs of public cyber charter schools?

**RQ 2a.** Is there a relationship between a student's disability category, racial/ethnic background, gender, and grade level on the level of compliance with the transition mandates of IDEA 2004?

**RQ 2b.** Is there a relationship between a student's disability category, racial/ethnic background, gender, and grade level on the level of incorporation of evidence-based best practices in transition?

**Hypothesis 2.** The hypothesis for this question was that a student's disability category, racial/ethnic background, gender, and grade level would affect the extent to which the transition components of the IEP documents provide evidence of compliance and incorporation of evidence-based practices. Multiple logistic regression was undertaken to investigate the predictive power of each of the independent variables on each of the dependent variables.

**RQ 3.** Is there a relationship between compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based practices in transition?

**Hypothesis.** The hypothesis for this question was that the two variables would be positively correlated. That is, that a high level of compliance would indicate greater incorporation of evidence-based practices in transition. Alternatively, a low level of compliance would indicate less incorporation of evidence-based practices in transition. Pearson's product-moment correlation was calculated to examine the relationship between the compliance and evidence-based practices composite scores.

Table 3-1. Cohen's kappa coefficient and percent agreement per question.

SPSS Name and Label	Kappa Value	Approx. Sig.
D8Stu Stu Attend?	1.000	0.000
D8Par Parent Attend?	98.0%*	
D8Gen Gen Ed Teach Attend?	1.000	0.000
D8SPED SPED Teach Attend?	0.659	0.000
D8LEA LEA Attend?	1.000	0.000
D8CTE CTE Attend?	100.0%*	
D8Com Community Agency Attend?	100.0%*	
D8Oth Other Attend?	0.961	0.000
C1 All Attend?	1.000	0.000
P2 Parent Contribute?	0.649	0.000
C2 Age Major Trans?	100.0%*	
D9 Agency Contribute?	1.000	0.000
P3 Agency Info?	0.900	0.000
C3 Parents Consent to Agency Invite?	100.0%*	
C3A Trans Srvs by Agency Early?	100.0%*	
C3B Trans Srvs by Agency Not Needed?	1.000	
C3C Trans Srvs by Agency Refused?	100.0%*	
C4 Present Levels?	100.0%*	
D10Func Pres Lvl's Func Included?	100.0%*	
D10Trans Pres Lvl's Trans PS Goals Include?	100.0%*	
D10Par Parent Concerns Included?	1.000	0.000
D10Dis Dis Affect Gen Ed Include?	100.0%*	

Table 3-1. Continued.

SPSS Name and Label	Kappa Value	Approx. Sig.
D10Str	100.0%*	
Strengths Include?		
D10Needs	100.0%*	
Needs Include?		
C5	1.000	0.000
Trans Srvs?		
C6	0.659	0.000
Trans Srvs Based on Needs, Etc.?		
D11	1.000	0.000
PS Edu Goal?		
C7	100.0%*	
One Annual Goal PS Edu?		
D12	1.000	0.000
PS Edu Goal Type?		
C8	0.502	0.000
PS Edu Goal Measure?		
C9	0.931	0.000
Trans Assess? PS Edu		
D13Like	1.000	0.000
Interest Invent? PS Edu		
D13Int	0.955	0.000
Interview? PS Edu		
D13Oth	0.908	0.000
Other? PS Edu		
D13Teach	0.779	0.000
Teacher Info? PS Edu		
D13IEP	0.951	0.000
IEP Document? PS Edu		
D14	1.000	0.000
PS Emp Goal?		
C10	100.0%*	
One Annual Goal PS Emp?		
D15FT	1.000	0.000
FT Emp Goal?		
D15PT	1.000	.000
PT Emp Goal?		
D15Comp	1.000	0.000
Competitiv Emp Goal?		
D15Supp	1.000	0.000
Supported Emp Goal?		
D15Shelt	100.0%*	
Sheltered Emp Goal?		
D15Oth	0.946	0.000
Other Emp Goal?		

Table 3-1. Continued.

SPSS Name and Label	Kappa Value	Approx. Sig.
C11	0.855	0.000
PS Emp Goal Measure?		
C12	0.876	0.000
Trans Assess? PS Emp		
D16Like	0.947	0.000
Interest Invent? PS Emp		
D16Int	0.834	0.000
Interview? PS Emp		
D16Oth	0.771	0.000
Other? PS Emp		
D16Teach	1.000	0.000
Teacher Info? PS Emp		
D16IEP	0.842	0.000
IEP Document? PS Emp		
D17	0.880	0.000
Career Cluster		
P4	0.741	0.000
Emp Prep Participate?		
D18CTE	100.0%*	
CTE?		
D18CBI	100.0%*	
CBI?		
D18WBL	98.0%*	
WBL?		
D18Coop	100.0%*	
Coop Learn?		
D18Life	1.000	0.000
Life Skills?		
D18Oth	1.000	0.000
Other Emp Prep?		
P5	0.875	0.000
Work Experience?		
D19Paid	1.000	0.000
Paid Work Experience?		
D19Vol	0.838	0.000
Volunteer Work Experience?		
D19Not	97.0%*	
Not Specific Work Experience?		
D20	1.000	0.000
PS IL Goal?		
C13	1.000	0.000
One Annual Goal PS IL?		
D21Not	1.000	0.000
Not Specific IL Goal?		

Table 3-1. Continued.

SPSS Name and Label	Kappa Value	Approx. Sig.
D21Com Community Living Goal?	1.000	0.000
D21Daily Daily Living Goal?	100.0%*	
D21SC Self-Care Living Goal?	1.000	0.000
D21Oth Other Living Goal?	1.000	0.000
C14 PS IL Goal Measure?	1.000	0.000
C15 Trans Assess? PS IL	0.726	0.000
D22Like Interest Invent? PS IL	1.000	0.000
D22Int Interview? PS IL	0.696	0.006
D22Oth Other? PS IL	0.632	0.011
D22Teach Teacher Info? PS IL	100.0%	
D22IEP IEP Document? PS IL	0.588	0.016
C16 Courses?	1.000	0.000
C17A Trans Grid Checked Yes?	1.000	0.000
C17B Trans Grid Ref Annual Goals?	1.000	0.000
C17C Trans Grid Annual Goals Ref as Srvs?	1.000	0.000
C17D Trans Grid Activities?	1.000	0.000
D23 State Assess Participate?	1.000	0.000
D24PSSAM PSSA Math?	1.000	0.000
D24PSSAS PSSA Science?	1.000	0.000
D24PSSAR PSSA Reading?	1.000	0.000
D24PSSAW PSSA Writing?	1.000	0.000

Table 3-1. Continued.

SPSS Name and Label	Kappa Value	Approx. Sig.
D24KEAlg	1.000	0.000
KE Alg 1?		
D24KELit	1.000	0.000
KE Literature?		
D24KEBio	1.000	0.000
KE Biology?		
D24PASA	1.000	0.000
PASA?		
P6	1.000	0.000
PSSA Supports Gen Ed?		
C18	100.0%*	
Measure Annual Goals?		
D25PSEdu	1.000	0.000
# Annual Goals Support PS Edu?		
D25PSEmp	0.979	0.000
# Annual Goals Support PS Emp?		
D25PSIL	1.000	0.000
# Annual Goals Support PS IL?		
P7	0.429	0.001
Stu Rec'd SS?		
D26	0.009	0.918
Trans Srvs SS?		
D27	0.958	0.000
Annual Goals SS?		
P8	0.933	0.000
Stu Rec'd SD?		
D28	0.933	0.000
Trans Srvs SD?		
D29	0.954	0.000
Annual Goals SD?		
P9	0.867	0.000
Stu Rec'd FDL?		
D30	0.912	0.000
Trans Srvs FDL?		
D31	0.899	0.000
Annual Goals FDL?		
D32Inst	100.0%*	
Trans Srvs Include Instruct?		
D32COS	1.000	0.000
Trans Srvs Include COS?		
D32Rel	98.0%*	
Trans Srvs Include Related Srvs?		
D32Com	1.000	0.000
Trans Srvs Include Comm Exp?		

Table 3-1. Continued.

SPSS Name and Label	Kappa Value	Approx. Sig.
D32PSEmp Trans Srvs Include PS Emp?	0.792	0.000
D32ADL Trans Srvs Include Acquire FDL?	0.933	0.000
D32Eval Trans Srvs Include Func Eval?	0.915	0.000
C19 100% Trans Srvs?	0.811	0.000
C20 Trans Srvs Align w PS Edu Goal?	1.000	0.000
C21 Trans Srvs Align w PS Emp Goal?	0.900	0.000
C22 Trans Srvs Align w PS IL Goal?	1.000	0.000
P10 SPED Supports?	1.000	0.000
P11 Time In Gen Ed Class?	1.000	0.000

Note: \*Kappa values were not calculated for these items because at least one variable in each 2-way table upon which measures of association were computed was a constant. Therefore, percent of agreement has been reported.

Table 3-2. Reliability statistics for compliance questions.

Reliability Statistics	
Cronbach's Alpha	0.976

Table 3-3. Intraclass correlation coefficient for compliance questions.

Measures	ICC	<i>p</i>
Single	0.953	0.000
Average	0.976	0.000

Table 3-4. Reliability statistics for evidence-based practices questions.

Reliability Statistics	
Cronbach's Alpha	0.942

Table 3-5. Intraclass correlation coefficient for evidence-based practices questions.

Measures	ICC	<i>p</i>
Single	0.880	0.000
Average	0.936	0.000

## CHAPTER 4 RESULTS

The purpose of this chapter is to report the results of the study. First, descriptive information about the sample and the characteristics of transition planning practices evident in the IEPs of public cyber charter schools is presented. Next, the results of the analyses of the impact of student demographic characteristics on transition planning practices are described. Finally, the relationship between compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based practices in transition is reported.

### **Sample**

The sample for the present study was comprised of 236 IEPs of students with disabilities that attended one of two public cyber charter schools in Pennsylvania during the 2012-2013 school year. School A provided 165 IEPs (69.9%) and School B provided 71 IEPs (30.1%). There were slightly more male students ( $n = 126, 53.4\%$ ) than female students ( $n = 110, 46.6\%$ ). The majority of students ( $n = 199, 84.3\%$ ) were classified as White (Non-Hispanic). Table 4-1 presents the other racial/ethnic backgrounds of the sample, as well as those for the state. The results of a chi-square test ( $\chi^2 (5) = 25.817, p = 0$ ) indicated that the composition of racial/ethnic backgrounds of the students for the sample and state significantly were different. The age distribution of the students ranged from 13 to 19 years of age ( $M = 15.19, SD = 1.57$ ). As previously noted, although transition planning is not required in Pennsylvania until a student reaches 14, the IEPs of students who were 13 at the implementation date were included within the sample as long as the student turned 14 before the services and programs ended. The grade level distribution of the students ranged from 6<sup>th</sup> to 12<sup>th</sup>

grade ( $M = 9.21$ ,  $SD = 1.47$ ). Tables 4-2 and 4-3 report the full age and grade level data of the students, and Table 4-4 presents the primary disabilities of the students. The most common primary disability category was specific learning disability ( $n = 116$ , 49.2%), followed by autism ( $n = 37$ , 15.7%), other health impairment ( $n = 33$ , 14.0%), and emotional disturbance ( $n = 25$ , 10.6%). Although 79.2% ( $n = 187$ ) of the sample did not have a secondary disability, the most common secondary disability category was speech or language impairment ( $n = 19$ , 8.1%), followed by other health impairment ( $n = 13$ , 5.5%), and specific learning disability ( $n = 12$ , 5.1%). No students had a tertiary disability category.

### **Research Question 1**

Research question one asked, “What are the characteristics of transition planning practices evident in the IEPs of public cyber charter schools?” To answer research question one, two sub questions were created. Descriptive statistics were utilized to answer the sub questions in order to provide a summary of the characteristics of transition planning programs in public cyber charter schools. Frequencies and percentages were calculated for all of the questions on the data collection instrument. These results are presented in the following sections.

#### **To What Extent do the Transition Components of the IEPs Reflect Compliance with the Transition Mandates of IDEA 2004?**

The data collection instrument included a total of 25 compliance questions, albeit two of the questions included additional sub questions. The transition component requirements that were addressed by the questions consisted of (a) who attended and contributed to the meeting, (b) timelines, (c) measurable post-secondary goals, (d) appropriate transition services, and (e) measurable annual goals that enable

achievement of post-secondary goals. Table 4-5 presents the frequency and percentage of responses results to these questions.

**Who attended and contributed to the meeting.** The IEP meeting dates during which transition planning was addressed spanned from June 2012 to June 2013. Although a parent/guardian, a special education teacher, and a LEA representative were the only individuals required to attend and to contribute to the meeting, the IEPs provided evidence that a variety of individuals participated in the development of each IEP (Table 4-6). An individual was determined to have attended and/or contributed to the meeting if it was indicated in the IEP that the individual had attended and/or contributed (a) in person, (b) via conference call, (c) via written input, (d) via Blackboard Collaborate (formerly Elluminate *Live!*) session. According to the IEPs, the individuals in attendance at over 96.2% of the IEP meetings included a parent/guardian, a general education teacher, a special education teacher, and a LEA representative. Therefore, 92.4% ( $n = 218$ ) of the IEPs were in compliance regarding whether all of the required individuals attended and/or contributed to the IEP meeting. Additionally, there was evidence in the IEPs that students attended 85.6% ( $n = 202$ ) of the IEP meetings, and other school personnel (e.g., counselor, speech-language pathologist, learning coach) attended 63.6% ( $n = 150$ ) of the IEP meetings.

Evidence provided in the IEPs indicated that out of all of the IEP meetings, a community agency representative attended only 1 (0.4%) meeting. For this IEP meeting, there was evidence in the IEP document that the representative of the agency/service had been invited. For 99.6% ( $n = 235$ ) of the IEP meetings there was no evidence in the IEP document that a representative of an agency/service had been

invited. However, sub questions addressed more specific aspects related to why agencies were not invited in order to determine compliance. For 99.2% ( $n = 234$ ) of the IEPs that provided no evidence that a representative of an agency/service was not invited, it was not too early to determine whether outside agency involvement was needed. However, it was unlikely that an outside agency would be providing or paying for services for 86% ( $n = 203$ ) of the IEPs. There was also no evidence for 99.2% ( $n = 234$ ) of the IEPs indicating that parents had refused to consent to inviting an agency/service representative to the meeting.

**Timelines.** Two questions addressed specific timeline requirements set forth by IDEA 2004. The first question regarded whether there was evidence that a parent/guardian had been advised that upon the age of majority (i.e., 21 years of age) that rights transfer to the student. The IEPs indicated full compliance ( $n = 236$ , 100%). The second question sought evidence that transition services were in place for students 14 years of age and older. Only 2 IEPs (0.8%) failed to include transition services.

**Measurable post-secondary goals.** IDEA 2004 also has required the development of appropriate and measurable post-secondary goals that must include education/training, employment, and, when necessary, independent living skills. Almost all IEPs ( $n = 231$ , 97.9%) included a post-secondary goal for education/training. However, only 24.2% of those IEPs were in compliance with regard to the goals meeting the minimal requirements to be considered measurable. According to the IEPs, on-the-job training was the goal for 4.7% ( $n = 11$ ) of the students, attending a technical program/school was the goal for 9.7% ( $n = 23$ ) of the students, and attending a two- or four-year college was the goal for 48.7% ( $n = 115$ ) of students. Some students ( $n = 82$ ,

34.7%) had a post-secondary goal for education/training that was noted as other. This classification included goals that were (a) specific as to the type of post-secondary education/training (e.g., nail technician certification), (b) unspecific as to the type of post-secondary education/training, or (c) assorted statements that often were unrelated to post-secondary education/training outcomes. As a result, a number of these statements would not be categorized as post-secondary goals for education/training even though they were regarded as such by the public cyber charter schools that participated in this study. Seventy-six percent of the IEPs provided evidence of compliance regarding the use of at least one age-appropriate transition assessment as the basis for the post-secondary education/training goal. The transition assessments noted in the IEPs included interest inventories ( $n = 26$ , 11%), formal or informal interviews with the student and/or parent ( $n = 99$ , 41.9%), formal evaluation data ( $n = 87$ , 36.9%), teacher information ( $n = 68$ , 28.8%), and IEP documentation ( $n = 68$ , 28.8%).

Ninety-five percent of the IEPs ( $n = 223$ ) included a post-secondary goal for employment, yet 88.6% of the goals did not meet the minimal requirements to be considered measurable. Therefore, only 7.6% of the IEPs were in compliance for having a measurable post-secondary goal for employment. The types of post-secondary goals for employment noted in the IEPs included full-time ( $n = 6$ , 2.5%), part-time ( $n = 2$ , 0.8%), competitive ( $n = 144$ , 61%), supported ( $n = 9$ , 3.8%), sheltered ( $n = 1$ , 0.4%), and other ( $n = 66$ , 28%). Similar to the post-secondary goals for education/training, the post-secondary goals for employment that were noted as other included (a) goals that were unspecific as to the type of post-secondary employment, and (b) a variety of statements that often were unrelated to post-secondary employment

outcomes. Again, although the statements that fell into the latter category were considered post-secondary goals by the public cyber charter schools that participated in this study, many of them did not refer to post-secondary employment outcomes.

The data collection instrument allowed for the post-secondary goals for employment to be categorized into 16 career clusters (NASDCTEc, 2013). Table 4-7 presents the number of post-secondary goals for employment associated with each of the career clusters. Although 34.3% ( $n = 81$ ) of the post-secondary employment goals did not indicate a career interest, of the 58% of goals that did indicate a career interest, the most common career clusters were arts, audio visual technology, and communication ( $n = 31$ , 13.1%); health science ( $n = 22$ , 9.3%); science, technology, engineering, and math ( $n = 14$ , 5.9); and law, public safety, corrections, and security ( $n = 13$ , 5.5%). Sixty-five percent of the IEPs provided evidence of compliance regarding the use of at least one age-appropriate transition assessment as the basis for the post-secondary goal for employment. The transition assessments noted in the IEPs included interest inventories ( $n = 40$ , 16.9%), formal or informal interviews with the student and/or parent ( $n = 111$ , 47.0%), formal evaluation data ( $n = 10$ , 4.2%), teacher information ( $n = 2$ , 0.8%), and IEP documentation ( $n = 67$ , 28.4%).

Although post-secondary goals for independent living might not have been appropriate for every student, 64.8% ( $n = 153$ ) of IEPs included a goal for this outcome area, while 31.8% ( $n = 75$ ) of IEPs included a statement that the outcome area was addressed, but not necessary for the student at the time. There were five types of independent living goals noted in the IEPs: not specific ( $n = 121$ , 51.3%), community living ( $n = 3$ , 1.3%), daily living ( $n = 0$ , 0.0%), self-care ( $n = 2$ , 0.8%), and other ( $n = 27$ ,

11.4%). The post-secondary goals that were classified as other designated IEPs that included a goal for family and/or agency supported living. Of the 153 IEPs that did include a post-secondary goal for this outcome area, only 16 (6.8%) IEPs were in compliance for having a measurable goal, and only 68 (28.8%) were in compliance for using at least one age-appropriate transition assessment as the basis for the goal. The transition assessments noted in the IEPs included interest inventories ( $n = 5$ , 2.1%), formal or informal interviews with the student and/or parent ( $n = 39$ , 16.5%), formal evaluation data ( $n = 4$ , 1.7%), teacher information ( $n = 69$ , 29.2%), and IEP documentation ( $n = 36$ , 15.3%).

**Appropriate transition services.** In the state of Pennsylvania, transition services are required to be in place for students who are 14 years of age or older. As previously noted, the IEPs of students who were 13 years of age at the beginning date of the IEP were included as long as the student turned 14 years of age before the services and programs ended. Ninety-nine percent ( $n = 234$ ) of IEPs were in compliance as far as having documentation in the IEP that transition services were in place, and there was evidence in 96.6% ( $n = 228$ ) of those IEPs that the services were based on individual student needs, strengths, preferences, and/or interests.

Data about the specific transition services that were addressed in IEPs also was collected. Every IEP is required to address the following transition services: (a) instruction, (b) courses of study, (c) related services, (d) community experiences, (e) development of employment and other post-school adult living objectives, (f) acquisition of daily living skills, and (g) provision of functional vocational evaluation. Even so, some of the transition services may not be necessary for every student, and in these

instances, documentation in the IEP that the transition service was considered is necessary. Only 31.4% ( $n = 74$ ) of IEPs provided evidence that indicated 100% of the required transition services had been considered and/or addressed. Table 4-8 presents the frequencies and percentages of IEPs that addressed transition services. The transition service most often addressed in the IEPs was instruction ( $n = 234$ , 99.2%), while community experiences was addressed in less than half of IEPs ( $n = 101$ , 42.8%).

A specific transition component of the IEP document used in Pennsylvania is called the Transition Grid. In order to assist schools in achieving compliance with regard to transition services, a series of questions were created related to the Transition Grid (PaTTAN, 2012). The questions collectively consider aspects of the Transition Grid for each targeted post-secondary goal area to ensure that the transition services included in the IEP focus on allowing the student to improve academic and functional achievement. For this study, in order to substantiate an affirmative response to each question, the Transition Grid had to be marked accurately for each post-secondary goal area that was addressed. Even if an area was not addressed (e.g., independent living), then the Transition Grid was considered to have been marked accurately as long as there was documentation that the area had been considered, although not necessary. More than half of the IEPs ( $n = 141$ , 59.7%) had not checked the box at the top of the Transition Grid to indicate that there was one or more annual goal(s) related to a post-secondary goal. Furthermore, the majority of IEPs ( $n = 158$ , 66.9%) had failed to reference at least one annual goal within the Transition Grid. Of those that did, only 32.2% ( $n = 76$ ) had referenced all annual goals. Most IEPs ( $n = 204$ , 86.4%) had

included at least one activity within the Transition Grid that would help a student work towards achievement of the post-secondary goal(s).

Overall, the IEPs were in compliance regarding the alignment between transition services and post-secondary goals. Of the students who had a post-secondary goal for education/training, 94.5% ( $n = 223$ ) of the IEPs indicated alignment. Eighty-eight percent of IEPs indicated that transition services aligned with post-secondary goals for employment. Finally, of the 64.8% of IEPs that included a post-secondary goal for independent living, 58.5% ( $n = 138$ ) of those goals aligned with transition services.

**Measurable annual goals that enable achievement of post-secondary goals.**

Data about annual goals was also collected. All of the IEPs ( $n = 236$ , 100%) included annual goals. For each post-secondary outcome area, a question addressed whether at least one annual goal supported the post-secondary goal, while a second question addressed how many annual goals enabled the student to meet the post-secondary goal. For education/training, 82.6% ( $n = 195$ ) of IEPs were in compliance with regard to having at least one annual goal support the post-secondary goal. The total number of annual goals for this outcome area ranged from 1 ( $n = 29$ , 12.3%) to 14 ( $n = 2$ , 0.8%). Seventy-two percent ( $n = 170$ ) of IEPs were in compliance with regard to annual goals linked to post-secondary employment outcomes, with a range of annual goals from 1 ( $n = 37$ , 15.7%) to 14 ( $n = 1$ , 0.4%). Of the IEPs that included a post-secondary goal for independent living, 48.3% ( $n = 114$ ) were not in compliance with regard to supporting annual goals. Those that were in compliance had a total number of annual goals that ranged from 1 ( $n = 24$ , 10.2%) to 14 ( $n = 1$ ; 0.4%).

## **To What Extent do the Transition Components of the IEPs Reflect Incorporation of Evidence-Based Best Practices in Transition?**

A literature review of evidence-based practices in transition planning was completed and used to design the 11 questions that assessed whether or not such practices were incorporated into the transition components of IEPs. The resulting categories, from most-to-least substantiated practices, included: (a) paid or unpaid work experience, (b) employment preparation program participation, (c) general education inclusion, (d) parent/family involvement (e) social skills training, (f) daily living training, (g) self-determination training, and (h) community/agency collaboration. Because all of the questions did not contain a dichotomous Yes or No response, the frequency and percentage of responses to these questions has been presented in Tables 4-9 through 4-12.

**Paid or unpaid work experience.** Although the most substantiated best practice in the literature has been work experience, only 28% ( $n = 66$ ) of IEPs provided evidence that students had participated or planned to participate in work experience. For the students who had this documentation in their IEPs, both paid employment ( $n = 29$ , 12.3%) and unpaid employment ( $n = 27$ , 11.4%) were common. For the remaining students ( $n = 10$ , 4.3%), the type of work experience was not specified.

**Employment preparation program participation.** Eighty-nine percent ( $n = 210$ ) of IEPs verified that students had participated or planned to participate in an employment preparation program. The types of programs that the IEPs included were CTE ( $n = 2$ , 0.8%), work-based learning ( $n = 14$ , 5.9%), life skills classes ( $n = 12$ , 5.1%), and other ( $n = 199$ , 84.3%). The employment preparation programs classified as other represented web-based programs. There was no evidence that any students had

participated or planned to participate in community-based instruction or cooperative learning.

**General education inclusion.** In the present levels of academic achievement and functional performance section of the IEPs, there was an area designated for a statement regarding how the student's disability affects his/her involvement and progress in the general education curriculum. There was evidence in all of the IEPs ( $n = 236$ , 100%) that this information had been documented. Evidence-based practices questions addressed the amount of special education supports received by students and the percentage of time that the student spent inside the general education classroom (Tables 4-11 and 4-12). The IEPs indicated that most students ( $n = 187$ , 79.2%) received itinerant support. That is, that those students received special education supports and services provided by special education personnel for 20% or less of the school day. In addition, most students ( $n = 206$ , 87.3) spent 80% or more of the school day inside the (virtual) general education classroom. All of the students ( $n = 236$ , 100%) were projected to receive a standard diploma. Although this information was not provided directly in the IEPs, it was provided to the researcher on the Student Demographic Characteristics Spreadsheet (Appendix D).

IDEA 2004 is aligned with efforts to improve education outcomes for all students with disabilities. Therefore, as required by law, all students with disabilities must be included in state and local assessments and be provided with appropriate accommodations or an alternate assessment, as determined to be necessary, and as indicated in the IEPs. State assessment data could not be collected for every IEP because assessments are not administered at all grade levels. As a result, evidence of

state assessment participation was available for 202 students. Table 4-13 presents the assessment options for the Pennsylvania System of School Assessment (PSSA) and the Keystone Exams. The majority of students who participated in the state assessments did so with appropriate accommodations. Fourteen students (5.9%) participated in the Pennsylvania Alternate System of Assessment (PASA). Therefore, because those students that were eligible to participate in state assessments were given appropriate accommodations or an alternate assessment, 85.6% of IEPs provided evidence that the state assessment was supportive of general education.

**Parent/family involvement.** As previously mentioned, a parent/guardian of a student is required to attend and contribute to the IEP meeting. The IEPs provided evidence that a parent/guardian was the individual who was present more frequently than any other individual at the IEP meetings during which transition planning was discussed ( $n = 233, 98.7\%$ ). Likewise, the evidence-based practices question with the highest number of Yes responses ( $n = 229, 97\%$ ) referred to whether the IEP provided evidence that a parent/guardian had contributed to the development of the transition components of the IEP. This was determined by referencing the present levels of academic achievement and functional performance section of the IEPs. For example, the area where parental concerns for enhancing the education of the student were documented often provided confirmation of parent/guardian contribution.

**Social skills training.** Twenty-five percent ( $n = 60$ ) of the IEPs confirmed that a student was either receiving social skills training or that the student had appropriate social skills. Of those IEPs, few provided evidence that annual goals ( $n = 14, 5.9\%$ ) and transition services ( $n = 13, 5.5\%$ ) addressing social skills were unnecessary. It was

more common for students receiving this type of training to have an annual goal that addressed this need ( $n = 33$ , 14%) rather than a transition service ( $n = 20$ , 8.5%).

**Daily living training.** Half of the IEPs ( $n = 126$ , 53.4%) showed that students were receiving functional, daily living skills training or that the student had appropriate functional, daily living skills. Students receiving this type of training were more likely to have transition services ( $n = 99$ , 41.9%) than annual goals ( $n = 10$ , 4.2%) that focused on these skills. The number of IEPs that had documented whether a student had appropriate daily living skills varied between transition services ( $n = 28$ , 11.9%) and annual goals ( $n = 41$ , 17.4%).

**Self-determination training.** The IEPs indicated that at least half of the students ( $n = 126$ , 53.4%) had received self-determination training or that the student had appropriate self-determination skills. Only 6 IEPs (2.5%) provided evidence that a student did not need any annual goals or transition services related to self-determination because he/she already had appropriate skills. Of the students who were receiving training, a greater number of students had transition services ( $n = 97$ , 41.1%) rather than annual goals ( $n = 64$ , 27.1%) related to self-determination.

**Community/agency collaboration.** Although there was evidence in the present levels of academic achievement and functional performance section of the IEPs for a small number of IEPs ( $n = 16$ , 6.8%) that some form of agency involvement had been noted, the evidence-based practices question with the lowest number of Yes responses ( $n = 26$ , 11%) referred to whether the IEP provided evidence that information on one or more community agency/service had been provided. As previously discussed, there was evidence in almost all of the IEPs ( $n = 234$ , 99.2%) that due to the ages of the

students, it was not too early to determine whether outside agency involvement was needed.

## **Research Question 2**

Research question two asked, “How do the demographic characteristics of students with disabilities impact transition planning practices evident in the IEPs of public cyber charter schools?” Similar to question one, in order to answer research question two, two additional sub questions were created. Multiple logistic regression was employed to investigate the predictive power of each of the independent variables on each of the dependent variables. Generally, this type of analysis is appropriate for describing and testing hypotheses regarding relationships between a categorical outcome variable and one or more categorical or continuous predictor variables (Peng, Lee, & Ingersoll, 2002). However, before running the logistic regression, the data needed to be prepared for analysis.

For each logistic regression analysis, each question acted as the dependent variable that the researcher was seeking evidence of within an IEP (1 = Yes, 2 = No). It was determined that there were too many response categories for the independent variables primary disability and racial/ethnic background. The researcher evaluated the descriptive data and selected those response categories with the highest frequency. For primary disability category these were specific learning disability, autism, other health impairment, and emotional disturbance. For racial/ethnic background these were White (Non-Hispanic), Black (Non-Hispanic), and Hispanic. Next, because these variables were categorical, dummy codes were created. This was also done for the racial/ethnic background variables. So, for example, a student with autism was entered into the model against students with all other disability categories. Similarly, a student

classified as White was entered into the model against all other students of other racial/ethnic backgrounds (i.e., non-White students). The independent variable gender and the covariate school type were dichotomous; therefore there was no need to create dummy codes. However, gender was coded 1 = male, 2 = female. Finally, grade level was entered as a numeric variable because there were seven response categories. Once these preparations were complete, a logistic regression was run twice for each of the dependent variables. For the first logistic regression, the covariate school type and the independent variables gender and grade level were introduced into the model. These variables were selected because they were the least substantiated demographic characteristics identified in the literature review. For the second logistic regression, all independent variables were introduced into the model.

The results of these analyses are presented in the following sections. Only the results of the logistic regression for the full model have been discussed within the chapter because there were no remarkable findings noted between the results of the first and second analyses. Only the tables presenting the variables that yielded statistically significant results have been included at the end chapter. The remainder of the tables can be found in Appendix F.

### **Is There a Relationship between a Student's Disability Category, Racial/Ethnic Background, Gender, and Grade Level on the Level of Compliance with the Transition Mandates of IDEA 2004?**

This question addressed the association between the independent variables (i.e., disability category, racial/ethnic background, gender, and grade level) and the compliance dependent variables (i.e., the compliance questions from the data collection instrument that addressed who attended and contributed to the meeting, timelines, measurable post-secondary goals, appropriate transition services, and measurable

annual goals that enable achievement of post-secondary goals). Again, there were 25 questions that addressed whether or not IEPs met the transition component requirements mandated by law. For questions C2 (i.e., “Is there any indication that the parents have been advised that upon age of majority rights transfer to the student?”), C4 (i.e., “Are present levels of academic achievement and functional performance included?”), and C18 (i.e., “Are there measurable annual IEP goals based on needs identified in present levels that will reasonably enable the student to meet post-secondary goals?”), performing a logistic regression analysis was not possible because the variable did not assume two values. That is, there were no responses in one of the response categories. For all other questions, analyses were carried out. The results from these analyses are presented in the following sections.

**Who attended and contributed to the meeting.** Two questions, (i.e., C1 and C3) addressed the transition component requirement regarding who attended and contributed to the IEP meeting during which transition planning was addressed. The logistic regression analyses for these outcomes produced no statistically significant results (Appendix F). Therefore, it can be concluded that a relationship did not exist between any of the independent variables and the dependent variables addressed by C1 and C3. For example, the results of the logistic regression for C1 indicated no association between the outcome variable of whether all of the required individuals attended and/or contributed to the development of the IEP and any of the predictor variables.

**Timelines.** Two questions (i.e., C2 and C5) addressed the transition component requirement concerning timelines. As previously mentioned, it was not possible to

perform a logistic regression for question C2. Although a logistic regression was run for question C5 (i.e., “If the student is age 14 or older, are transition services in place?”), there were no statistically significant results (Appendix F). This means that none of the independent variables were associated with this transition component requirement.

**Measurable post-secondary goals.** For each targeted post-secondary outcome area (i.e., education/training, employment, and independent living), a question addressed (a) whether the post-secondary goal was measurable, and (b) whether there was evidence provided in the IEP that the post-secondary goal had been based on at least one age-appropriate transition assessment. The logistic regression analyses for questions C8 (i.e., “Is the education/training goal measurable?”) and C11 (i.e., “Is the employment goal measurable?”) produced no statistically significant results (Appendix F). It can be concluded that a relationship did not exist between any of the independent variables (i.e., disability category, racial/ethnic background, gender, and grade level) and whether the education/training goal and employment goal were determined to be measurable post-secondary goals. However, the logistic regression results presented in Table 4-14, for question C14 (i.e., “Is the independent living goal measurable?”), have indicated that the disability category specific learning disability ( $\beta = .158$ ) was statistically significant ( $p < .05$ ). The positive value of  $\beta$  implies that when students with a specific learning disability were compared to all others, it was more likely for the IEPs of students with a specific learning disability not to have a measurable post-secondary goal for independent living. Therefore, when compared to students in all other disability categories, students who were classified with a disability category specific learning

disability were 1.172 times more likely not to have a post-secondary goal that was measurable for independent living.

Regarding whether there was evidence provided in the IEP that the post-secondary goal had been based on at least one age-appropriate transition assessment, the results, presented in Tables 4-15 through 4-17, have indicated that grade level for education/training ( $\beta = -.492$ ), employment ( $\beta = -.412$ ), and independent living ( $\beta = -.523$ ) was statistically significant ( $p < .05$ ). The negative values of  $\beta$  imply that the higher the grade level of a student, the more likely it was for an IEP to have provided evidence that at least one age-appropriate transition assessment was used. The odds ratio indicates that a one unit change in grade level increased the odds of no evidence for education/training by a factor of .611, for employment by a factor of .662, and for independent living by a factor of .593.

For question C15 (i.e., “Is there evidence that the independent living goal has been based upon at least one age-appropriate transition assessment?”), in addition to grade level, the four disability categories: autism ( $\beta = 1.421$ ), emotional disturbance ( $\beta = .504$ ), other health impairment ( $\beta = .206$ ), and specific learning disability ( $\beta = .120$ ) also were statistically significant ( $p < .05$ ). Therefore, for any selected disability category, the positive value of  $\beta$  implies a greater possibility that no evidence was provided in the IEPs of students with that disability category. For example, students categorized with a disability category emotional disturbance were more likely to have a No response when compared to students of all other disability categories. In fact, the odds ratio indicated that the IEPs of students with emotional disturbance were 1.655 times more likely to

have had no evidence in their IEPs that the independent living goal had been based upon at least one age-appropriate transition assessment.

**Appropriate transition services.** Question C5, previously mentioned in the section regarding timelines, also was relevant to the transition component requirement of appropriate transition services. However, it has already been noted that the logistic regression produced no statistically significant results. In addition to C5, question C6 (i.e., “Is there evidence that the transition services were based on the student’s needs, strengths, preferences, or interests?”) also produced no statistically significant results.

Transition services that must be considered and/or addressed in every IEP include (a) instruction, (b) courses of study, (c) related services, (d) community experiences, (e) development of employment and other post-school adult living objectives, (f) acquisition of daily living skills, and (g) provision of functional vocational evaluation. Therefore, the results of the logistic regression run for question C19 (i.e., “Are 100% of the required transition services addressed?”) have indicated that grade level ( $\beta = -.390$ ), the disability category autism ( $\beta = 1.801$ ), and the racial/ethnic background category Black ( $\beta = .733$ ) were statistically significant ( $p < .05$ ; Table 4-18). The negative value of  $\beta$  for grade level implies that the higher the grade level of a student, the more likely it was for an IEP to have provided evidence that 100% of the required transition services had been considered and/or addressed. The odds ratio indicates that a one unit change in grade level increased the odds of a No response (i.e., no evidence) by a factor of .677.

The positive value of  $\beta$  for students with autism implies that when students from this disability category were compared to all others, it was more likely for the IEPs of

students with autism not to have provided evidence that 100% of the required transition services had been considered and/or addressed. Therefore, students who were classified with the disability category autism were 6.053 times more likely to have provided no evidence in their IEPs concerning required transition services. This interpretation is also true for students who were classified as Black. As a result, when compared to students classified in other racial/ethnic backgrounds, Black students were 2.082 times more likely to have provided no evidence in their IEPs concerning required transition services.

Question C16 queried more specifically about a single transition service, courses of study. The logistic regression for this outcome variable produced no statistically significant results (Appendix F). Therefore, it can be concluded that a relationship did not exist between any of the independent variables (i.e., disability category, racial/ethnic background, gender, and grade level) and evidence that transition services included courses of study.

As previously mentioned, a specific transition component of the IEP document used in Pennsylvania is called the Transition Grid. Question C17A through C17D addressed specific aspects of the Transition Grid for each targeted post-secondary goal area to ensure that transition services included in the IEP focused on allowing the student to improve both academic and functional achievement. The logistic regression analyses for questions C17A and C17C produced statistically significant results (Tables 4-19 and 4-20); however the analyses for questions C17B and C17D produced no statistically significant results (Appendix F).

For question C17A (i.e., “For each targeted post-secondary goal area, is the box at the top of the grid section checked Yes to indicate that there is one or more measurable annual goal(s) related to that post-secondary goal?”), the disability category emotional disturbance ( $\beta = .396$ ) was statistically significant ( $p < .05$ ). The positive value of  $\beta$  for students with emotional disturbance implies that when students from this disability category were compared to all others, it was more likely for the IEPs of students with emotional disturbance not to have the box at the top of the grid section checked Yes. The odds ratio indicates that students who were classified with the disability category emotional disturbance were 1.485 times more likely not to have the box at the top of the grid section checked Yes, which would have indicated that there was one or more measurable annual goal related to that post-secondary goal.

For question C17D (i.e., “Are all measurable annual goals referenced as services in the Transition Grid?”), grade level ( $\beta = -.214$ ) and the disability category specific learning disability ( $\beta = -.122$ ) were statistically significant ( $p < .05$ ). The negative value of  $\beta$  for grade level implies that the higher the grade level of a student, the greater the chances for an IEP to have provided evidence that all measurable annual goals were referenced as services in the Transition Grid. According to the odds ratio, a one unit change in grade level increased the odds of no evidence by a factor of .807. Likewise, the negative value of  $\beta$  for the disability category specific learning disability implies that there was an increased possibility for the IEP of a student with a disability category specific learning disability versus all other disability categories to have provided evidence that the all measurable annual goals were referenced as services in the

Transition Grid. The odds ratio indicates the disability of specific learning disability increased the odds of no evidence by a factor of .885.

Three questions (i.e., C20, C21, and C22) queried whether the transition services aligned with the post-secondary goal for each targeted outcome area. The logistic regression for each outcome area produced no statistically significant results (Appendix F). Therefore, it can be concluded that a relationship did not exist between any of the independent variables (i.e., disability category, racial/ethnic background, gender, and grade level) and whether transition services aligned with post-secondary goals for education/training, employment, and independent living, respectively.

**Measurable annual goals that enable achievement of post-secondary goals.**

Four questions (i.e., C7, C10, C13, and C18) related to this transition component requirement. Questions C7, C10, and C13 all sought evidence that there was at least one annual goal that supported the post-secondary goal for each of the targeted outcome areas that were addressed in an IEP. The logistic regression analyses for each of these variables produced no statistically significant results (Appendix F). For that reason, it can be concluded that there was no association of the predictor variables with any of the outcome variables. As previously mentioned, it was not possible to perform a logistic regression for question C18.

**Is There a Relationship between a Student's Disability Category, Racial/Ethnic Background, Gender, and Grade Level on the Level of Incorporation of Evidence-Based Best Practices in Transition?**

This question addressed the association between the independent variables (i.e., disability category, racial/ethnic background, gender, and grade level) and the evidence-based practices dependent variables (i.e., paid or unpaid work experience, employment preparation program participation, general education inclusion, parent/family

involvement, social skills training, daily living training, self-determination training, and community/agency collaboration). Again, there were 11 questions that assessed whether or not such practices were incorporated into the transition components of IEPs. For questions P1 (i.e., “What is the student’s projected graduation type?”) and P6 (i.e., “Is the state assessment supportive of general education”), performing a logistic regression analysis was not possible because the variable did not assume two values. That is, there were no responses in one of the response categories. For all other questions, analyses were carried out. As previously noted, only the logistic regression analyses that yielded statistically significant results have been discussed within this section of the chapter.

**Paid or unpaid work experience.** A logistic regression was applied to determine the relationship of the independent variables on the outcome of whether an IEP provided evidence that a student had participated or planned to participate in work experience (Table 4-21). The results indicated that grade level ( $\beta = -.735$ ) and two of the racial/ethnic background categories, Black ( $\beta = .861$ ) and White ( $\beta = .398$ ), were significant ( $p < .05$ ). Recalling that the coding scheme employed by the researcher was inverse (1 = Yes, 2 = No), the negative value of  $\beta$  for grade level implies that the higher the grade level of a student, the more likely it was for an IEP to have provided evidence of student participation in a paid or unpaid work experience. The odds ratio indicates that a one unit change in grade level increased the odds of a No response by a factor of .479.

The positive value of  $\beta$  for Black implies that when students classified in that racial/ethnic background were compared to all others, it was more likely for the IEPs of

Black students to have provided no evidence of student participation in work experience. This interpretation also is true for White students. Therefore, when compared to students classified in other racial/ethnic backgrounds, students who were classified as Black were 2.366 times more likely to have provided no evidence in their IEPs that the student had participated or planned to participate in work experience. Likewise, students who were classified as White were 1.489 times more likely to have provided no evidence of this practice in their IEPs.

**Employment preparation program participation.** One question (i.e., P4) addressed whether the IEP referred to past or future participation in an employment preparation program for a student. The logistic regression for this outcome produced no statistically significant results (Appendix F). Therefore, it can be concluded that a relationship did not exist between any of the independent variables (i.e., disability category, racial/ethnic background, gender, and grade level) and this practice.

**General education inclusion.** Two questions queried the amount of special education supports provided to students and the percentage of time spent inside the general education classroom, respectively. For question P10, regarding special education supports, itinerant support (i.e., special education supports and services provided by special education personnel for 20% or less of the school day) was coded as 1, and supplemental support (i.e., special education supports and services provided by special education personnel for more than 20% of the day, but less than 80% of the school day) was coded as 2. The results, presented in Table 4-22, have indicated that the four disability categories: autism ( $\beta = -1.993$ ), emotional disturbance ( $\beta = -.929$ ),

other health impairment ( $\beta = -.369$ ), and specific learning disability ( $\beta = -.339$ ), as well as the racial/ethnic background Black ( $\beta = 1.034$ ) were statistically significant ( $p < .05$ ).

For any selected disability category, the negative value of  $\beta$  implies that there was an increased possibility for the IEP of a student with that specific disability versus all other disability categories to have provided evidence that the student had received itinerant support. For example, students categorized with a disability of other health impairment were more likely to have a 1 response, indicating itinerant support. In addition, categorization as a student with a disability of other health impairment increased the odds of a 2 response (i.e., supplemental support) by a factor of .691.

The positive value of  $\beta$  for Black implies that when students classified in that racial/ethnic background were compared to all others, it was more likely for the IEPs of Black students to have provided evidence that the student had received supplemental support. As a result, students who were classified as Black were 2.813 times more likely to have provided evidence of supplemental supports in their IEPs.

For question P11, regarding percentage of time spent inside the general education classroom, 80% or more of the day was coded as 1, and 79-40% of the day was coded as 2. The logistic regression results, presented in Table 4-23, have indicated that grade level ( $\beta = .451$ ) and the four disability categories: autism ( $\beta = -1.993$ ), emotional disturbance ( $\beta = -.939$ ), other health impairment ( $\beta = -.276$ ), and specific learning disability ( $\beta = -.348$ ) were statistically significant ( $p < .05$ ). The positive value of  $\beta$  for grade level implies that the higher the grade level of a student, the more likely it was for the IEP to have provided evidence that the student was spending 79-40% of the day inside the general education classroom. Therefore, the odds ratio

indicated that the IEPs of students in higher grade levels were 1.571 times more likely to have provided evidence that the student spent 79-40% of the day inside the general education classroom.

Similar to the previous interpretation, for any selected disability category, the negative value of  $\beta$  implies that there was an increased possibility for the IEP of a student with that specific disability versus all other disability categories to have provided evidence that the student was spending 80% or more of the day inside the general education classroom. For example, students categorized with a disability of emotional disturbance were more likely to have had a 1 response, indicating 80% or more. In addition, categorization as a student with a disability of emotional disturbance increased the odds of a 2 response (i.e., 79-40%) by a factor of .391.

**Parent/family involvement.** The results of the logistic regression regarding whether or not there was evidence in IEPs of parent/guardian contribution to transition planning, presented in Table 4-24, have indicated that grade level ( $\beta = -.827$ ) and gender ( $\beta = 3.299$ ) were statistically significant ( $p < .05$ ). The negative value of  $\beta$  for grade level implies that the higher the grade level of a student, the more likely it was for an IEP to have provided evidence of this practice. The odds ratio indicated that a one unit change in grade level increased the odds of a No response by a factor of .437. The positive value of  $\beta$  for gender implies a greater possibility that no evidence of this practice was provided in the IEPs of female students. In fact, the odds ratio indicated that the IEPs of female students were 27.083 times more likely to have provided no evidence of parent/family involvement.

**Social skills training.** Concerning whether an IEP had provided evidence that a student was receiving social skills training or had appropriate social skills, the results of the logistic regression for question P7, presented in Table 4-25, reported statistically significant results for grade level ( $\beta = -.251$ ) and the disability category autism ( $\beta = -2.010$ ). The negative values of  $\beta$  imply a greater possibility that evidence was provided in the IEPs for students in increasing grade levels and for students categorized in the disability category autism. Therefore, a one unit change in grade level increased the odds of no evidence by a factor of .479. Likewise, the disability category autism increased the odds of no evidence by a factor of .134.

**Daily living training.** One question (i.e., P9) addressed whether an IEP provided evidence that a student was receiving functional, daily living skills training or had appropriate functional, daily living skills. The results of the logistic regression, presented in Table 4-26, have indicated that grade level ( $\beta = -.515$ ) was statistically significant ( $p < .05$ ). The negative value of  $\beta$  implies that the higher the grade level of a student, the greater the possibility for an IEP to have provided evidence. The odds of a No response increased by a factor of .597 for a one unit change in grade level.

**Self-determination training.** A logistic regression was run to determine the relationship between the independent variables and self-determination training. The results for question P8 (i.e., "Is there any indication that the student is receiving self-determination training or that the student has appropriate self-determination skills?"), presented in Table 4-27, have indicated that grade level ( $\beta = -.302$ ) was statistically significant ( $p < .05$ ). The negative value of  $\beta$  implies that the higher the grade level of a student, the more likely it was for an IEP to have provided evidence. The odds ratio

indicates that a one unit change in grade level increased the odds of no evidence by a factor of .739.

**Community/agency collaboration.** The results of the logistic regression that referred to whether an IEP provided evidence that information on one or more community agencies/services was provided have been presented in Table 4-28. Grade level ( $\beta = -.908$ ) was statistically significant ( $p < .05$ ). The negative value of  $\beta$  implies that the higher the grade level of a student, the greater the chances for an IEP to provide evidence of this practice. According to the odds ratio, a one unit change in grade level increased the odds of a No response by a factor of .403.

### **Research Question 3**

The third research question that this study addressed asked, “Is there a relationship between compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based practices in transition?” To answer this question, composite compliance and evidence-based practices scores were calculated. For compliance, the range of possible scores was 0 through 25, with 25 being fully compliant. The overall level of compliance was 16.01 ( $SD = 3.21$ ). For evidence-based practices, the range of possible scores was 0 through 11, with 11 indicating that there was evidence of all of the practices in the IEPs. The overall level of incorporation of evidence-based practices was 7.06 ( $SD = 1.50$ ).

It is pertinent to recall that ICC values were calculated for the compliance questions and the evidence-based practices questions, and that the results of these calculations indicated acceptable reliability levels (Chapter 3). As a result, it was concluded that the compliance and evidence-based practices total scores could be used

in the main analysis to provide trustworthy results. For that reason, a Pearson's product-moment correlation was calculated between the compliance and evidence-based practices composite scores. This bivariate correlational procedure is useful when (a) each of the two variables is quantitative in nature and (b) each variable is measured to produce raw scores (Huck, 2008).

A statistically significant ( $**p < 0.01$ ) moderate correlation of  $r = 0.306$  was found. This result indicates that there is a positive relationship between the level of compliance and the level of incorporation of evidence-based practices in transition evident in the IEPs. That is, that a higher level of compliance would indicate greater incorporation of evidence-based practices in transition. Conversely, a lower level of compliance would indicate less incorporation of evidence-based practices in transition.

### **Summary**

This chapter reported the results of study. The sample for the study included 236 IEPs of students with disabilities between 14 and 21 years of age, who had attended at a public cyber charter school in Pennsylvania during the 2012-2013 school year. First, descriptive statistics were utilized in order to explain the characteristics of transition planning practices in public cyber charter schools by exploring the extent that the transition components of the IEPs reflected compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based best practices in transition. The overall level of compliance as evidenced in the IEPs was 16.01 ( $SD = 3.21$ ). The range of possible scores was 0-25, with 25 indicating that all of the components were 100% compliant. The overall level of evidence-based practices as evidenced in the IEPs was 7.06 ( $SD = 1.50$ ). The range of possible scores was 0-11, with 11 indicating that there was evidence of all of the evidence-based practices in the IEPs. Second, multiple

logistic regression was employed in order to examine the impact of individual demographic characteristics (i.e., disability category, racial/ethnic background, gender, and grade level) on the transition planning practices in public cyber charter schools. A student's disability category, racial/ethnic background, gender, and grade level were found to be influencing factors that increased or decreased the probability of an IEP being compliant or incorporating evidence-based practices. Third, a Pearson's product-moment correlation was used to determine the relationship between compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based practices in transition. A statistically significant (\*\* $p < 0.01$ ) moderate correlation of  $r = 0.306$  was found between the compliance and evidence-based practices composite scores, indicating that as the level of compliance increased, so did the level of incorporation of evidence-based practices.

Table 4-1. Racial/ethnic backgrounds of students for sample and state.

Racial/ethnic background	Sample	Freq. (%)	State	(%)
American Indian/Alaskan Native		0 (0.0)		(0.2)
Asian/Pacific Islander		2 (0.8)		(1.4)
Black (Non-Hispanic)		18 (7.6)		(17.5)
Hispanic		12 (5.1)		(9.2)
White (Non-Hispanic)	199	(84.3)		(69.7)
Multicultural		5 (2.1)		(2.0)

Table 4-2. Ages of students.

Age in years	Freq. (%)
13	42 (17.8)
14	44 (18.6)
15	51 (21.6)
16	45 (19.1)
17	36 (15.3)
18	14 (5.9)
19	4 (1.7)

Table 4-3. Grade level of students.

Grade	Freq. (%)
Sixth	1 (0.4)
Seventh	33 (14.0)
Eighth	50 (21.2)
Ninth	52 (22.0)
Tenth	41 (17.4)
Eleventh	49 (20.8)
Twelfth	10 (4.2)

Table 4-4. Primary disability category of students.

<u>Disability category</u>	<u>Freq. (%)</u>
AU	37 (15.7)
DB	0 (0.0)
Deaf	0 (0.0)
ED	25 (10.6)
HI	1 (0.4)
MR	9 (3.8)
MD	5 (2.1)
OI	1 (0.4)
OHI	33 (14.0)
SLD	116 (49.2)
SLI	6 (2.5)
TBI	2 (0.8)
VI	1 (0.4)

Note: AU = Autism; DB = Deaf-blindness; Deaf = Deafness; ED = Emotional disturbance; HI = Hearing impairment; MR = Mental retardation; MD = Multiple disabilities; OI = Orthopedic Impairment; OHI = Other health impairment; SLD = Specific learning disability; SLI = Speech or language impairment; TBI = Traumatic brain injury; VI = Visual impairment, including blindness

Table 4-5. Responses to compliance questions.

Question	Yes Freq. (%)	No Freq. (%)
C1. Did all of the required individuals attend and/or contribute to the meeting?	218 (92.4)	18 (7.6)
C2. Is there any indication that the parents have been advised that upon age of majority rights transfer to the student?	236 (100.0)	0 (0.0)
C3. For transition services that are likely to be provided or paid for by other agencies, is there evidence that representatives of the agencies/services were invited to the IEP meeting?	1 (0.4)	235 (99.6)
C3A. If agencies were not invited, is it too early to determine that outside agency involvement is needed?	1 (0.4)	234 (99.2)
C3B. If agencies were not invited, was it unlikely that an outside agency would be providing or paying for services?	203 (86.0)	32 (13.6)
C3C. If agencies were not invited, did parents refuse to consent to inviting outside agency personnel?	1 (0.4)	234 (99.2)
C4. Are present levels of academic achievement and functional performance included?	236 (100.0)	0 (0.0)
C5. If the student is age 14 or older, are transition services in place?	234 (99.2)	2 (0.8)
C6. Is there evidence that the transition services were based on the student's needs, strengths, preferences, or interests?	228 (96.6)	7 (3.0)
C7. If the answer to D11 is Yes: Is there at least one annual goal that supports the student's education/training post-secondary goal?	195 (82.6)	36 (2.1)
C8. Is the education/training goal measurable?	57 (24.2)	174 (73.7)
C9. Is there evidence that the education/training goal has been based on at least one age-appropriate transition assessment?	179 (75.8)	52 (22.0)
C10. Is there at least one annual goal that supports the student's employment post-secondary goal?	170 (72.0)	57 (24.2)
C11. Is the employment goal measurable?	18 (7.6)	209 (88.6)
C12. Is there evidence that the employment goal has been based upon at least one age-appropriate transition assessment?	154 (65.3)	73 (30.9)
C13. Is there at least one annual goal that supports the student's independent living post-secondary goal, if appropriate?	41 (17.4)	114 (48.3)
C14. Is the independent living goal measurable?	16 (6.8)	139 (58.9)

Table 4-5. Continued.

Question	Yes Freq. (%)	No Freq. (%)
C15. Is there evidence that the independent living goal has been based upon at least one age-appropriate transition assessment?	68 (28.8)	87 (36.9)
C16. Is there evidence that transition services include courses of study that focus on improving academic and functional achievement and will reasonably enable the student to meet post-secondary goals?	190 (80.5)	46 (19.5)
C17A. For each targeted post-secondary goal area, is the box at the top of the grid section checked Yes to indicate that there is one or more measurable annual goal(s) related to that post-secondary goal?	95 (40.3)	141 (59.7)
C17B. For each targeted post-secondary goal area, does the transition grid contain a reference to one or more measurable annual goal/service addressing a skill need?	78 (33.1)	158 (66.9)
C17C. Are all measurable annual goals referenced as services in the transition grid?	76 (32.2)	160 (67.8)
C17D. For each targeted post-secondary goal area, does the transition grid contain at least one activity to help a student reach that goal?	204 (86.4)	32 (13.6)
C18. Are there measurable annual IEP goals based on needs identified in present levels that will reasonably enable the student to meet post-secondary goals?	236 (100.0)	0 (0.0)
C19. Are 100% of the required transition services addressed?	74 (31.4)	162 (68.6)
C20. Are the transition services aligned with the student's education/training goal(s)?	223 (94.5)	4 (1.7)
C21. Are the transition services aligned with the student's employment goal(s)?	208 (88.1)	2 (0.8)
C22. Are the transition services aligned with the student's independent living goal(s)?	138 (58.5)	1 (.4)

Note: Not all questions were answered for each IEP; therefore, the totals might not add up to 100%.

Table 4-6. Individuals that attended the IEP meeting that addressed transition.

Individual	Yes Freq. (%)	No Freq. (%)
Student	202 (85.6)	34 (14.4)
Parent/Guardian	233 (98.7)	3 (1.3)
General Education Teacher	231 (97.9)	5 (2.1)
Special Education Teacher	227 (96.2)	9 (3.8)
Local Education Agency Rep	227 (96.2)	9 (3.8)
Career/Tech Ed Rep	3 (1.3)	233 (98.7)
Community Agency Rep	1 (0.4)	235 (99.6)
Other	150 (63.6)	86 (36.4)

Table 4-7. Career clusters of post-secondary goals for employment.

Transition Service	Yes Freq. (%)
Career interest not indicated	81 (34.3)
Agriculture, food, and natural resources	9 (3.8)
Architecture and construction	5 (2.1)
Arts, audio visual technology, and communication	31 (13.1)
Business management and administration	0 (0.0)
Education and training	10 (4.2)
Finance	0 (0.0)
Government and public administration	5 (2.1)
Health science	22 (9.3)
Hospitality and tourism	3 (1.3)
Human services	9 (3.8)
Information technology	5 (2.1)
Law, public safety, corrections, and security	13 (5.5)
Manufacturing	1 (0.4)
Marketing	4 (1.7)
Science, technology, engineering, and math	14 (5.9)
Transportation, distribution, and logistics	6 (2.5)

Table 4-8. Transition services addressed in IEP documents.

Transition Service	Yes Freq. (%)	No Freq. (%)
Instruction	234 (99.2)	1 (0.4)
Courses of study	190 (80.5)	45 (19.1)
Related services	215 (91.1)	20 (8.5)
Community experiences	101 (42.8)	134 (56.8)
Development of employment and other post-school adult living objectives	156 (66.1)	79 (33.5)
Acquisition of daily living skills	115 (48.7)	120 (50.8)
Provision of functional vocational evaluation	176 (74.6)	59 (25.0)

Note: Not all IEPs had transition services; therefore, the totals might not add up to 100%.

Table 4-9. Response to evidence-based practices question P1.

Question	Diploma Freq. (%)	Recognition Freq. (%)
What is the student's projected graduation type?	236 (100.0)	0 (0.0)

Table 4-10. Responses to evidence-based practices questions.

Question	Yes Freq. (%)	No Freq. (%)
P2. Is there any indication that the parent/guardian contributed to the development of the transition components of the IEP?	229 (97.0)	7 (3.0)
P3. Does the IEP provide evidence that information on one or more community agency/service has been provided?	26 (11.0)	210 (89.0)
P4. Has the student participated in employment preparation programming OR is there any indication that the student will participate?	210 (89.0)	26 (11.0)
P5. Has the student participated in previous paid or unpaid work experience OR is there evidence that the student will participate?	66 (28.0)	170 (72.0)
P6. Is the state assessment supportive of general education?	202 (85.6)	0 (0.0)
P7. Is there any indication that the student is receiving social skills training OR that the student has appropriate social skills?	60 (25.4)	176 (74.6)
P8. Is there any indication that the student is receiving self-determination training OR that the student has appropriate self-determination skills?	126 (53.4)	110 (46.6)
P9. Is there any indication that the student is receiving functional, daily living skills training OR that the student has appropriate functional, daily living skills?	134 (56.8)	102 (43.2)

Note: State assessments are not administered at all grade levels; therefore, the total for P6 does not add up to 100%.

Table 4-11. Response to evidence-based practices question P10.

Question	Itinerant Freq. (%)	Supplement Freq. (%)	Full-time Freq. (%)
Amount of special education supports:	187 (79.2)	46 (19.5)	3 (1.3)

Table 4-12. Response to evidence-based practices question P11.

Question	80% More Freq. (%)	79-40% Freq. (%)	Less 40% Freq. (%)
What is the percentage of time the student spends inside the general education classroom?	206 (87.3)	27 (11.4)	0 (0.0)

Note: Some students are educated outside of the regular school building for more than 50% of the day; therefore, the total does not add up to 100%.

Table 4-13. Participation in state assessments.

Assessment	With Accommodations Freq. (%)	Without Accommodations Freq. (%)
PSSA		
Math	108 (45.8)	2 (0.8)
Science	85 (36.0)	3 (1.3)
Reading	105 (44.5)	4 (1.7)
Writing	81 (34.3)	3 (1.3)
Keystone Exams		
Algebra 1	77 (32.6)	1 (0.4)
Literature	69 (29.2)	2 (0.8)
Biology	75 (31.8)	2 (0.8)

Note: State assessments are not administered at all grade levels; therefore, the totals do not add up to 100%.

Table 4-14. Multiple logistic regression results for evidence that the independent living goal was measurable.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
C14	Block 1				
	School type	2.182 (.655)	11.082 (1)	.001	8.862
	Grade level	.107 (.196)	.295 (1)	.587	1.113
	Gender	-.188 (.566)	.110 (1)	.740	.829
	Constant	-.326 (2.190)	.022 (1)	.882	.722
	Block 2				
	School type	2.951 (.826)	12.774 (1)	.000	19.117
	Grade level	.113 (.211)	.288 (1)	.592	1.120
	Gender	.236 (.638)	.137 (1)	.712	1.266
	AU	2.397 (1.280)	3.506 (1)	.061	10.986
	ED	5.261 (2298.875)	.000 (1)	.998	192.672
	OHI	.095 (.111)	.726 (1)	.394	1.099
	SLD	.158 (.081)	3.860 (1)	.049	1.172
	Black (Non-Hispanic)	-.341 (.497)	.470 (1)	.493	.711
	Hispanic	.055 (.444)	.016 (1)	.901	1.057
	White (Non-Hispanic)	.091 (.265)	.117 (1)	.732	1.095
	Constant	-3.214 (2.692)	1.426 (1)	.232	.040

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .148 (Cox & Snell); .305 (Nagelkerke). Model  $\chi^2$  (4) = 24.851, *p* < .05.

Table 4-15. Multiple logistic regression results for evidence that the education/training goal has been based on at least one age-appropriate transition assessment.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
C9	Block 1				
	School type	-1.390 (.351)	15.680 (1)	.000	.249
	Grade level	-.491 (.126)	15.164 (1)	.000	.612
	Gender	.200 (.343)	.339 (1)	.560	1.221
	Constant	3.745 (1.221)	9.410 (1)	.002	42.328
	Block 2				
	School type	-1.356 (.380)	12.699 (1)	.000	.258
	Grade level	-.492 (.131)	14.090 (1)	.000	.611
	Gender	.065 (.362)	.033 (1)	.857	1.068
	AU	-1.282 (.833)	2.367 (1)	.124	.277
	ED	.084 (.186)	.205 (1)	.651	1.088
	OHI	.013 (.079)	.028 (1)	.868	1.013
	SLD	-.050 (.062)	.649 (1)	.420	.951
	Black (Non-Hispanic)	-.285 (.396)	.519 (1)	.471	.752
	Hispanic	-.184 (.312)	.347 (1)	.556	.832
	White (Non-Hispanic)	-.080 (.201)	.157 (1)	.692	.923
	Constant	4.702 (1.622)	8.409 (1)	.004	110.171

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .152 (Cox & Snell); .231 (Nagelkerke). Model  $\chi^2$  (4) = 38.017, *p* < .05.

Table 4-16. Multiple logistic regression results for evidence that the employment goal has been based upon at least one age-appropriate transition assessment.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
C12	Block 1				
	School type	-1.464 (.325)	20.325 (1)	.000	.231
	Grade level	-.412 (.111)	13.818 (1)	.000	.662
	Gender	-.121 (.310)	.151 (1)	.697	.886
	Constant	4.146 (1.135)	13.347 (1)	.000	63.184
	Block 2				
	School type	-1.425 (.346)	16.928 (1)	.000	.241
	Grade level	-.412 (.115)	12.820 (1)	.000	.662
	Gender	-.156 (.331)	.223 (1)	.637	.855
	AU	-.068 (.705)	.009 (1)	.923	.934
	ED	-.705 (.193)	.152 (1)	.697	.927
	OHI	.040 (.079)	.257 (1)	.612	1.041
	SLD	.042 (.061)	.483 (1)	.487	1.043
	Black (Non-Hispanic)	.117 (.338)	.119 (1)	.730	1.124
	Hispanic	-.173 (.282)	.379 (1)	.538	.841
	White (Non-Hispanic)	-.131 (.177)	.543 (1)	.461	.877
	Constant	4.491 (1.498)	8.989 (1)	.003	89.188

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .165 (Cox & Snell); .230 (Nagelkerke). Model  $\chi^2$  (4) = 40.820, *p* < .05.

Table 4-17. Multiple logistic regression results for evidence that the independent living goal has been based upon at least one age-appropriate transition assessment.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
C15	Block 1				
	School type	-1.440 (.645)	4.982 (1)	.026	.237
	Grade level	-.466 (.128)	13.238 (1)	.000	.628
	Gender	-.141 (.346)	.166 (1)	.683	.868
	Constant	6.137 (1.580)	15.095 (1)	.000	462.623
	Block 2				
	School type	-1.377 (.678)	4.130 (1)	.042	.252
	Grade level	-.523 (.138)	14.374 (1)	.000	.593
	Gender	-.014 (.399)	.001 (1)	.971	.986
	AU	1.421 (.683)	4.329 (1)	.037	4.140
	ED	.504 (.205)	6.043 (1)	.014	1.655
	OHI	.206 (.083)	6.205 (1)	.013	1.229
	SLD	.120 (.059)	4.118 (1)	.042	1.127
	Black (Non-Hispanic)	.495 (.375)	1.742 (1)	.187	1.641
	Hispanic	.023 (.300)	.006 (1)	.938	1.024
	White (Non-Hispanic)	.012 (.183)	.004 (1)	.947	1.012
	Constant	5.039 (1.837)	7.528 (1)	.006	154.318

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .181 (Cox & Snell); .243 (Nagelkerke). Model  $\chi^2$  (4) = 30.948, *p* < .05.

Table 4-18. Multiple logistic regression results for evidence that 100% of the required transition services were addressed.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
C19	Block 1				
	School type	-1.815 (.421)	18.622 (1)	.000	.163
	Grade level	-.343 (.107)	10.317 (1)	.001	.709
	Gender	.176 (.301)	.342 (1)	.559	1.193
	Constant	5.127 (1.214)	17.846 (1)	.000	168.464
	Block 2				
	School type	-1.849 (.442)	17.482 (1)	.000	.157
	Grade level	-.390 (.113)	11.926 (1)	.001	.677
	Gender	.460 (.335)	1.878 (1)	.171	1.584
	AU	1.801 (.633)	8.102 (1)	.004	6.053
	ED	.260 (.172)	2.283 (1)	.131	1.297
	OHI	.090 (.069)	1.719 (1)	.190	1.094
	SLD	.075 (.051)	2.183 (1)	.140	1.077
	Black (Non-Hispanic)	.733 (.358)	4.199 (1)	.040	2.082
	Hispanic	.397 (.288)	1.891 (1)	.169	1.487
	White (Non-Hispanic)	.291 (.179)	2.633 (1)	.105	1.338
Constant	2.857 (1.499)	3.630 (1)	.057	17.402	

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .176 (Cox & Snell); .247 (Nagelkerke). Model  $\chi^2$  (4) = 45.709,  $p < .05$ .

Table 4-19. Multiple logistic regression results for evidence that the box at the top of the transition grid was checked yes.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
C17A	Block 1				
	School type	2.145 (.327)	.327 (1)	.000	8.546
	Grade level	-.033 (.102)	.102 (1)	.747	.968
	Gender	.117 (.301)	.152 (1)	.679	1.124
	Constant	-.941 (1.065)	.780 (1)	.377	.390
	Block 2				
	School type	2.589 (.381)	46.085 (1)	.000	13.312
	Grade level	.000 (.108)	.000 (1)	.997	1.000
	Gender	-.124 (.333)	.138 (1)	.711	.884
	AU	-.565 (.578)	.954 (1)	.329	.568
	ED	.396 (.184)	4.627 (1)	.031	1.485
	OHI	.098 (.073)	1.804 (1)	.179	1.103
	SLD	.046 (.051)	.793 (1)	.373	1.047
	Black (Non-Hispanic)	.021 (.342)	.004 (1)	.950	1.022
	Hispanic	.233 (.300)	.605 (1)	.437	1.263
	White (Non-Hispanic)	.096 (.177)	.295 (1)	.587	1.101
	Constant	-2.040 (1.435)	2.022 (1)	.155	.130

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .243 (Cox & Snell); .328 (Nagelkerke). Model  $\chi^2$  (4) = 65.722, *p* < .05.

Table 4-20. Multiple logistic regression results for evidence that all measurable annual goals were referenced as services in the transition grid.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
C17C	Block 1				
	School type	-.227 (.313)	.525 (1)	.469	.797
	Grade level	-.216 (.097)	4.888 (1)	.027	.806
	Gender	.064 (.283)	.052 (1)	.820	1.067
	Constant	2.813 (1.038)	7.345 (1)	.007	16.655
	Block 2				
	School type	-.383 (.329)	1.352 (1)	.245	.682
	Grade level	-.214 (.102)	4.436 (1)	.035	.807
	Gender	.040 (.306)	.017 (1)	.895	1.041
	AU	-1.121 (.671)	2.794 (1)	.095	.326
	ED	-.261 (.181)	2.069 (1)	.150	.770
	OHI	-.097 (.077)	1.564 (1)	.211	.908
	SLD	-.122 (.060)	4.084 (1)	.043	.885
	Black (Non-Hispanic)	-6.785 (4898.712)	.000 (1)	.999	.001
	Hispanic	-4.905 (3674.034)	.000 (1)	.999	.007
	White (Non-Hispanic)	-4.076 (2939.227)	.000 (1)	.999	.017
	Constant	24.277 (14696.136)	.000 (1)	.999	34957483829.7
					73

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .069 (Cox & Snell); .097 (Nagelkerke). Model  $\chi^2$  (4) = 16.938, *p* < .05.

Table 4-21. Multiple logistic regression results for evidence of participation in paid or unpaid work experience.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
P5	Block 1				
	School type	-2.812 (.581)	23.445 (1)	.000	.060
	Grade level	-.679 (.129)	27.638 (1)	.000	.507
	Gender	.077 (.336)	.052 (1)	.819	1.080
	Constant	9.530 (1.579)	36.416 (1)	.000	13768.597
	Block 2				
	School type	-2.918 (.610)	22.875 (1)	.000	.054
	Grade level	-.735 (.137)	29.027 (1)	.000	.479
	Gender	.133 (.370)	.130 (1)	.719	1.143
	AU	.262 (.631)	.173 (1)	.678	1.300
	ED	.040 (.187)	.045 (1)	.832	1.041
	OHI	.039 (.076)	.269 (1)	.604	1.040
	SLD	.008 (.054)	.024 (1)	.878	1.008
	Black (Non-Hispanic)	.861 (.391)	4.852 (1)	.028	2.366
	Hispanic	.270 (.303)	.795 (1)	.373	1.310
	White (Non-Hispanic)	.398 (.195)	4.191 (1)	.041	1.489
	Constant	8.019 (1.834)	19.127 (1)	.000	3037.408

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .042 (Cox & Snell); .790 (Nagelkerke). Model  $\chi^2$  (4) = 10.151, *p* < .05.

Table 4-22. Multiple logistic regression results for evidence of the amount of special education supports.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
P10	Block 1				
	School type	-.725 (.342)	4.491 (1)	.034	.484
	Grade level	.107 (.133)	.895 (1)	.344	1.113
	Gender	-.399 (.341)	1.367 (10)	.242	.671
	Constant	-1.352 (1.162)	1.352 (1)	.245	.259
	Block 2				
	School type	-1.911 (.488)	15.335 (1)	.000	.148
	Grade level	.065 (.132)	.240 (1)	.642	1.067
	Gender	-.359 (.417)	.742 (1)	.389	.698
	AU	-1.993 (.653)	9.331 (1)	.002	.136
	ED	-.929 (.217)	18.234 (1)	.000	.395
	OHI	-.369 (.092)	15.933 (1)	.000	.691
	SLD	-.339 (.064)	27.666 (1)	.000	.713
	Black (Non-Hispanic)	1.034 (.451)	5.261 (1)	.022	2.813
	Hispanic	.322 (.376)	.734 (1)	.392	1.380
	White (Non-Hispanic)	.154 (.245)	.396 (1)	.529	1.167
	Constant	1.282 (1.788)	.514 (1)	.473	3.603

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .222 (Cox & Snell); .352 (Nagelkerke). Model  $\chi^2$  (4) = 58.397, *p* < .05.

Table 4-23. Multiple logistic regression results for evidence of the percentage of time spent inside the general education classroom.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
P11	Block 1				
	School type	2.731 (1.039)	6.913 (1)	.009	15.342
	Grade level	.409 (.161)	6.451 (1)	.011	1.505
	Gender	-.078 (.430)	.033 (1)	.856	.925
	Constant	-8.127 (2.082)	15.240 (1)	.000	.000
	Block 2				
	School type	1.929 (1.095)	3.100 (1)	.078	6.879
	Grade level	.451 (.196)	5.290 (1)	.021	1.571
	Gender	.060 (.587)	.010 (1)	.919	1.062
	AU	-1.933 (.716)	7.280 (1)	.007	.145
	ED	-.939 (.320)	8.626 (1)	.003	.391
	OHI	-.276 (.100)	7.651 (1)	.006	.759
	SLD	-.348 (.072)	23.124 (1)	.000	.706
	Black (Non-Hispanic)	.759 (.473)	2.574 (1)	.109	2.137
	Hispanic	.149 (.437)	.116 (1)	.734	1.160
	White (Non-Hispanic)	.048 (.251)	.037 (1)	.848	1.049
	Constant	-6.337 (2.678)	5.598 (1)	.018	.002

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .230 (Cox & Snell); .449 (Nagelkerke). Model  $\chi^2$  (4) = 60.859,  $p < .05$ .

Table 4-24. Multiple logistic regression results for evidence of parent/guardian contribution to the transition components of the IEP.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
P2	Block 1				
	School type	-.421 (.906)	.216 (1)	.642	.656
	Grade level	-.715 (.306)	3.956 (1)	.047	.489
	Gender	2.247 (1.133)	3.956 (1)	.047	9.460
	Constant	-.802 (3.407)	.055 (1)	.814	.449
	Block 2				
	School type	-.369 (1.031)	.128 (1)	.721	.692
	Grade level	-.827 (.406)	4.141 (1)	.042	.437
	Gender	3.299 (1.431)	5.312 (1)	.021	27.083
	AU	19.495 (6698.127)	.000 (1)	.998	292666723.132
	ED	4.749 (1674.532)	.000 (1)	.998	115.508
	OHI	.069 (1032.850)	.000 (1)	1.000	1.072
	SLD	1.851 (669.813)	.000 (1)	.998	6.367
	Black (Non-Hispanic)	6.527 (4264.501)	.000 (1)	.999	683.017
	Hispanic	4.399 (3198.376)	.000 (1)	.999	81.338
	White (Non-Hispanic)	3.320 (2558.701)	.000 (1)	.999	27.663
	Constant	-37.209 (14440.866)	.000 (1)	.998	.000

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .090 (Cox & Snell); .383 (Nagelkerke). Model  $\chi^2$  (4) = 22.205, *p* < .05.

Table 4-25. Multiple logistic regression results for evidence of social skills training.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
P7	Block 1				
	School type	-1.225 (.402)	9.291 (1)	.002	.294
	Grade level	-.264 (.109)	5.864 (1)	.015	.768
	Gender	.517 (.315)	2.694 (1)	.101	1.678
	Constant	3.724 (1.195)	9.715 (1)	.002	41.420
	Block 2				
	School type	-.993 (.465)	4.554 (1)	.033	.370
	Grade level	-.251 (.123)	4.131 (1)	.042	.778
	Gender	-.146 (.378)	.150 (1)	.698	.864
	AU	-2.010 (.609)	10.907 (1)	.001	.134
	ED	.045 (.176)	.066 (1)	.798	1.046
	OHI	.095 (.080)	1.431 (1)	.232	1.100
	SLD	.072 (.053)	1.799 (1)	.180	1.074
	Black (Non-Hispanic)	.449 (.391)	1.319 (1)	.251	1.567
	Hispanic	.244 (.321)	.577 (1)	.448	1.276
	White (Non-Hispanic)	.208 (.198)	1.107 (1)	.293	1.231
	Constant	3.346 (1.643)	4.146 (1)	.042	28.399

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .225 (Cox & Snell); .332 (Nagelkerke). Model  $\chi^2$  (4) = 60.242,  $p < .05$ .

Table 4-26. Multiple logistic regression results for evidence of functional, daily living skills training.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
P9	Block 1				
	School type	-3.292 (.433)	57.920 (1)	.000	.037
	Grade level	-.459 (.121)	14.399 (1)	.000	.632
	Gender	.105 (.330)	.101 (1)	.751	1.111
	Constant	6.122 (1.348)	20.630 (1)	.000	455.827
	Block 2				
	School type	-3.604 (.482)	55.921 (1)	.000	.027
	Grade level	-.515 (.128)	16.216 (1)	.000	.597
	Gender	.327 (.367)	.793 (1)	.373	1.387
	AU	1.143 (.703)	2.645 (1)	.104	3.137
	ED	.143 (.194)	.544 (1)	.461	1.154
	OHI	.085 (.079)	1.149 (1)	.284	1.089
	SLD	-.014 (.062)	.047 (1)	.829	.987
	Black (Non-Hispanic)	.768 (.432)	3.160 (1)	.075	2.155
	Hispanic	.362 (.340)	1.132 (1)	.287	1.436
	White (Non-Hispanic)	.247 (.231)	1.146 (1)	.284	1.280
Constant	4.941 (1.790)	7.617 (1)	.006	139.940	

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .366 (Cox & Snell); .491 (Nagelkerke). Model  $\chi^2$  (4) = 107.537,  $p < .05$ .

Table 4-27. Multiple logistic regression results for evidence of self-determination training.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
P8	Block 1				
	School type	.284 (.295)	.929 (1)	.335	1.329
	Grade level	-.313 (.094)	11.050 (1)	.001	.731
	Gender	.153 (.270)	.321 (1)	.571	1.165
	Constant	2.314 (.962)	5.783 (1)	.016	10.119
	Block 2				
	School type	.422 (.316)	1.790 (1)	.181	1.525
	Grade level	-.302 (.097)	9.653 (1)	.002	.739
	Gender	.016 (.290)	.003 (1)	.956	1.016
	AU	-.362 (.568)	.405 (1)	.524	.696
	ED	-.016 (.155)	.010 (1)	.919	.984
	OHI	.002 (.064)	.001 (1)	.979	1.002
	SLD	.050 (.048)	1.096 (1)	.295	1.052
	Black (Non-Hispanic)	.423 (.341)	1.538 (1)	.215	1.526
	Hispanic	.364 (.277)	1.731 (1)	.188	1.439
	White (Non-Hispanic)	.153 (.182)	.712 (1)	.399	1.166
Constant	1.309 (1.323)	.979 (1)	.322	3.702	

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .088 (Cox & Snell); .177 (Nagelkerke). Model  $\chi^2$  (4) = 21.710,  $p < .05$ .

Table 4-28. Multiple logistic regression results for evidence that information on one or more community agency/service has been provided.

DV	IV	$\beta$ (SE)	Wald (df)	<i>P</i>	Exp ( $\beta$ )
P3	Block 1				
	School type	-1.409 (.618)	5.197 (1)	.023	.244
	Grade level	-.876 (.204)	18.438 (1)	.000	.416
	Gender	-.185 (.449)	.169 (1)	.681	.831
	Constant	12.073 (2.440)	24.489 (1)	.000	175116.881
	Block 2				
	School type	-1.339 (.659)	4.127 (1)	.042	.262
	Grade level	-.908 (.218)	17.336 (1)	.000	.403
	Gender	-.525 (.523)	1.005 (1)	.316	.592
	AU	-.693 (.773)	.803 (1)	.370	.500
	ED	.295 (.313)	.889 (1)	.346	1.343
	OHI	-.055 (.096)	.325 (1)	.569	.947
	SLD	.045 (.071)	.405 (1)	.524	1.046
	Black (Non-Hispanic)	-.134 (.486)	.076 (1)	.783	.875
	Hispanic	4.695 (2605.500)	.000 (1)	.999	109.377
	White (Non-Hispanic)	.066 (.259)	.064 (1)	.800	1.068
	Constant	12.515 (2.940)	18.125 (1)	.000	272311.947

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .148 (Cox & Snell); .295 (Nagelkerke). Model  $\chi^2$  (4) = 37.676,  $p < .05$ .

## CHAPTER 5 DISCUSSION

The purposes of the study were to determine (a) the characteristics of transition planning practices in public cyber charter schools by exploring the extent that the transition components of the IEPs reflect compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based practices in transition; (b) the impact of individual demographic characteristics (i.e., disability category, racial/ethnic background, gender, and grade level) on the transition planning practices in public cyber charter schools by exploring the relationship between characteristics and the level of compliance with the transition mandates of IDEA 2004 and the relationship between characteristics and the level of incorporation of evidence-based practices in transition; and (c) the relationship between compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based practices in transition. Three primary research questions, two of the three with two secondary research questions, were posed in the study. These questions were addressed using a variety of statistical analyses including (a) descriptive statistics, (b) multiple logistic regression, and (c) Pearson's product-moment correlation.

This study used the transition theory to create an adaptable framework for analyzing the transition planning practices provided to students with disabilities that support the achievement of desired post-school activities. Schlossberg et al. (1995) established the 4 S System (4 S's) as a way to structure the process of analyzing a transition and formulating a plan for coping with a transition. That is, IEP team members are to consider all potential resources to determine their influences on a number of transition components, and utilize that information to develop a transition

plan. The 4 S's refer to an individual's Situation, Strategies, Support, and Self. Figure 1 (Chapter 2) presents the interconnected relationship between the 4 S's as they pertain to the transition planning practices provided to students with disabilities, with the central objective of achievement of post-school activities.

The purpose of this chapter is to discuss the results of the study. First, an overview of the major findings of the study and probable explanations are discussed with regard to each of the research questions. Next, support for the application of the transition theory in this study is integrated throughout the chapter when relevant to the discussion. Then, the implications of the findings for future research are discussed. Finally, the chapter concludes with a discussion of the limitations of the study and a summary.

### **Overview of the Findings**

As participation in online learning programs steadily has increased for students with disabilities (Liu & Cavanaugh, 2010), the development of quality special education programs has become essential. For students with disabilities, these programs must involve transition planning. It is possible that transition planning might decrease or eliminate many of the barriers that limit student achievement of post-school goals (McDonnell et al., 1992; Wehmeyer & Webb, 2012). Likewise, the degree of stress associated with the transition from school to post-school life (i.e., Situation) also might be lessened. Until now, transition planning practices in online learning programs, such as public cyber charter schools, have remained unknown. Therefore, an examination of transition planning practices of public cyber charter schools was warranted.

## Research Question 1

The first research question (i.e., “What are the characteristics of transition planning practices evident in the IEPs of public cyber charter schools?”) was answered through two sub questions that addressed compliance with IDEA 2004 and incorporation of evidence-based practices.

**To what extent do the transition components of the IEPs reflect compliance with the transition mandates of IDEA 2004?** In this study, 25 questions from the data collection instrument addressed compliance with the transition mandates of IDEA 2004. A composite compliance score was calculated for the 236 IEPs included in the study. The overall level of compliance was 16.01 ( $SD = 3.21$ ). The range of possible scores was 0 through 25, with 0 indicating that none of the transition components of compliance were 100% compliant, and 25 indicating that all of the transition components were 100% compliant. Although this finding cannot be compared directly to any previous research regarding compliance because of the different manners in which compliance has been conceptualized, it can be compared in general. Previous research (Grigal et al., 1997; Tillman & Ford, 2001; Denkyirah, 2003; Blankenship, 2004) has found that IEPs typically have not met full compliance, but that the level of compliance has been reasonable. Landmark and Zhang (2012) examined overall compliance in an analogous way to the present study; however, they grouped the requirements into five components. Thus, the range of possible scores was 0 through 5, with 5 equating to full compliance. Out of 201 IEPs, the overall level of compliance was 2.03 ( $SD = 1.24$ ). These findings indicate that the extent to which transition components identified in the IEPs reflect compliance with the transition mandates of IDEA 2004 for the public cyber charter school setting is comparable to the traditional

school setting. However, in either context, minimal to moderate levels of compliance are not acceptable. The established target is full compliance. Yet, it is worth noting, that even if schools meet the legal mandates for transition, a fully compliant IEP does not amount to quality transition planning, nor can it guarantee that a student will transition successfully to adulthood (deFur, 2003).

In addition to overall compliance, individual component requirements also were examined. The transition component requirements that were addressed by the study consisted of (a) who attended and contributed to the meeting, (b) timelines, (c) measurable post-secondary goals, (d) appropriate transition services, and (e) measurable annual goals that enable achievement of post-secondary goals.

Consideration of the specific aspects of compliance associated with transition planning allows for enhanced understanding of the construct. As such, the individual transition component requirements and the major findings related to the components are discussed in the following sections.

**Who attended and contributed to the meeting.** It is crucial to the development of a transition plan that the right individuals are invited to attend and to contribute to the IEP meeting during which transition planning is addressed. IDEA 2004 mandates that (a) the LEA invite all team members, (b) the LEA seek consent, by either a parent/guardian or student who has reached the age of majority, to invite any agency/service representatives, if necessary, and (c) the contributions of all team members, even if absent, are employed when developing the IEP. According to IDEA 2004, the team members are to include: (a) the parent/guardian, (b) not less than one general education teacher, (c) not less than one special education teacher, (d) a LEA

representative, (e) an individual who can interpret the instructional implication of evaluation results, and (f) the child (i.e., student). However, according to the IEP documents provided by the two public cyber charter schools that participated in this study, the only required team members were (a) the parent/guardian, (b) a special education teacher, and (c) a LEA representative. Therefore, all of the required individuals were considered to have attended the IEP meeting if those three individuals were listed on the signature page. That said, the core team members were in attendance at over 96% of the IEP meetings, which means that 92% of the IEPs were in compliance with this transition component. These findings are similar, if not higher than previous studies (Powers et al., 2005; Steele, Konrad, & Test, 2005) have shown. In the most recent study, Landmark and Zhang (2012) found that only 57% of the IEPs in their study included documentation of the attendance and contribution of core team members. It is possible that this finding should be interpreted with caution, as the figure might be inflated due to the fact that the schools involved in the present study did not require as many team members to be present in order to meet this requirement.

As would be the expectation, the student is the individual whose life is impacted the most by the outcomes of the transition from school to post-school activities (Kim & Turnbull, 2004). Because of this, the student should be considered one of the most important team members, and should always attend and/or contribute to the development of the transition plan. In the present study, students attended 86% of the IEP meetings. This is an area in which the schools were doing well. The majority of previous research (Getzel & deFur, 1997; Grigal et al., 1997; Shearin et al., 1999; Tillman & Ford, 2001; Steele, Konrad, & Test, 2005) has found low compliance with

regarding to student attendance. However, it does appear that improvements have been realized over time. Denkyirah (2003) found that students were in attendance at 79% of the IEP meetings, while Powers et al. (2005) reported that students were in attendance at 76% of the IEP meetings. Landmark and Zhang (2012) found that students were invited to and contributed to 93% of the IEP meetings.

Consistent with previous research, the attendance and contribution of agency/service representatives was the lowest of any other individual (i.e., less than 1% of the IEP meetings). Out of 236 IEPs, only 1 IEP included evidence that an agency/service representative had been invited, attended, and contributed to the meeting. Although it was speculated that no outside agency would be providing or paying for services for the majority of students, the same could not be said for 33 of the students whose IEPs did not invite outside representatives. This possible explanation for the lack of agency/service participation during the IEP meeting is analogous to the one made by Denkyirah (2003) which speculated that adult agency services may not have been required because an overwhelming majority of the sample was comprised of students with a disability category specific learning disability. While certainly not unexpected, this finding indicates that no progress has been made over the course of almost two decades with regard to increasing the participation of outside agency/service representatives in the transition planning process. In addition, this finding indicates no difference with regard to whether students attended a traditional school versus a public cyber charter school.

One aspect of the IEP meetings that is unique to this study is that the IEP meetings often incorporated a virtual component. In addition to team members

attending meetings through traditional means (i.e., in person, via conference call, or via written input), many of the IEPs contained documentation that various team members (e.g., student and parent/guardian) had attended the meeting virtually via Blackboard Collaborate (formerly Elluminate *Live!*) session. Blackboard Collaborate is a platform designed specifically for education that allows for the creation of virtual meeting spaces. Because of the nature of cyber schools, and the fact that students, teachers, service providers, and the LEA may be spread out across vast distances, this finding not only seems logical, but innovative.

**Timelines.** Several aspects of compliance with the transition mandates of IDEA 2004 concern timelines related to the implementation and completion of certain tasks. These tasks include: (a) ensuring that transition services are in place when the student is 14 years of age, (b) updating transition services annually, (c) advising the parent/guardian, as well as the student, that upon the age of majority that rights transfer to the student, and (d) providing a Summary of Performance at the dismissal IEP meeting. Unfortunately, because the present study only examined IEP documents for the 2012-2013 school year, information regarding whether transition services were updated annually, as well as whether a summary of performance was provided to students at the dismissal IEP meeting, was not able to be collected. Regarding the other aspects, high levels of compliance were found. Specifically, transition services were included in the IEPs of 99% of students who were 14 years of age and older. All of the IEPs included evidence that rights transfer to the student upon the age of majority. This is an area where the schools are doing well. Landmark and Zhang (2012) is the only other study that has examined timelines. In their study, only 42% of

IEPs were compliant with regard to meeting all of the timelines. When compared, these results indicate that the public cyber charter schools that participated in the present study have done a better job at adhering to specific timelines with regard to the two aspects for which data was collected. Moreover, it is possible to speculate that had additional data been collected (e.g., Summary of Performance), that the schools also would have done well with meeting those timelines.

**Measurable post-secondary goals.** IDEA 2004 also has required the development of appropriate and measurable post-secondary goals that must include education/training, employment, and, when necessary, independent living skills. In the present study, 98% of IEPs included a post-secondary goal for education/training, 95% included a post-secondary goal for employment, and 65% included a post-secondary goal for independent living. O’Leary (2008) set forth standards useful for determining if a post-secondary goal can be deemed measurable. According to these standards, the goal must occur after graduating high school, and refer to an outcome, not a process (i.e., what the student will do, not what the student plans to do).

The present study found that 24% of the education/training goals were measurable, 8% of the employment goals were measurable; and 7% of the independent living goals were measurable. These findings were similar to those of Grigal et al. (1997) who found that even though the transition plans had goals related to all of the target outcome areas, the quality of the goals was rated as adequate to minimal. Yet, when compared to the findings of the most recent study by Landmark and Zhang (2012), who utilized the same standards to determine whether post-secondary goals were measurable, these findings were far worse. Landmark and Zhang reported that

59% of the education/training goals were measurable, 52% of the employment goals were measurable, and 77% of the independent living goals were measurable. These bleak findings indicate an immense lack of knowledge and/or training regarding how to write measurable post-secondary goals. It is imperative that IEPs contain measurable post-secondary goals for the needed targeted outcome areas. This ensures that the education and services provided to a student during middle and/or high school appropriately match what have been identified as post-secondary goals, so the student is able to make progress toward meeting the goals. Additionally, if post-secondary goals are not measurable, it is not possible to determine whether a student actually has achieved the goals.

The types of post-secondary goals included in the IEPs of the present study closely matched those of previous research (Grigal et al., 1997; Thompson, Fulk, & Piercy, 2000). Thompson and his colleagues found that the majority of students planned to pursue post-secondary education/training, work in competitive employment, and participate in recreation and leisure activities. Similarly, the present study found that 49% of students planned to attend a two- or four-year college, and 61% of students planned to participate in competitive employment. About half (51%) of students with a post-secondary goal for independent living did not identify a specific type of goal.

**Appropriate transition services.** Transition services aid student progress toward meeting post-secondary goals. In the state of Pennsylvania, transition services are required to be in place for students who are 14 years of age or older. IDEA 2004 requires every IEP to address the following transition services: (a) instruction, (b) courses of study, (c) related services, (d) community experiences, (e) development of

employment and other post-school adult living objectives, (f) acquisition of daily living skills, and (g) provision of functional vocational evaluation. It is possible that one or more of the services will not be necessary for every student. When that is the case, the IEP must include a statement that the service, at the very least, was considered.

The present study found that only 31% of IEPs addressed 100% of the required transition services. The transition service most often addressed in IEPs was instruction (99%), while community experiences was addressed in less than half of IEPs (43%). Similarly, Landmark and Zhang (2012) found that only 27% of IEPs addressed 100% of the required services. Blankenship (2004) found that while most IEPs did not address all five of the required transition areas, instruction and related services were addressed more often than community experiences, or employment and post-school living objectives. Collectively, these findings demonstrate that many of the available transition services are underused. It is possible that IEP team members might not understand what the various transition services entail and how they can be provided to students.

There was evidence in 97% of IEPs that transition services were based on individual student needs, strengths, preferences, and/or interests. This finding was higher than the 80% of IEPs found by Landmark and Zhang (2012). One difference in these findings, is that in the present study, the student needs, strengths, preferences and/or interests explicitly were written in the description of the present levels of academic achievement and functional performance section of the IEPs, and the raters were instructed to look for a clear link between what was described in the present levels and transition services. Landmark and Zhang, however, noted that the IEPs they reviewed provided this type of evidence simply by the presence of a checked box that

indicated that the transition services had been based up on needs, strengths, preferences and/or interests.

These findings can be linked directly to additional findings concerning the alignment between transition services and post-secondary goals. In the present study, 95% of the IEPs indicated that transition services supported the post-secondary goals for education/training, compared to 24% by Landmark and Zhang (2012). As well, 88% of the IEPs indicated support for employment, compared to 28%, and 65% for independent living, compared to 35%. Therefore, these findings appear to reinforce the value of including detailed information regarding student needs, strengths, preferences and/or interests in the IEPs.

One aspect of appropriate transition services that is unique to this study is that the IEP documents for the public cyber charter schools included a specific component called the Transition Grid. Depending on the format selected by an individual school, the Transition Grid might represent only the current year of transition planning or might have been added to each year to represent the coordinated set of activities that has been designed to lead the student from school to post-school. Thus, specific sections of the Transition Grid are to be filled out accordingly, as required by the state of Pennsylvania.

Unfortunately, it seems that neither of the schools were using the Transition Grid to its full potential. More than half of the IEPs (60%) had not checked the box at the top of the Transition Grid to indicate that there was one or more annual goal(s) related to a specific post-secondary goal. Furthermore, the majority of IEPs (67%) had failed to reference at least one annual goal within the Transition Grid. Most IEPs (86%) had

included at least one activity that would help a student work towards achievement of the post-secondary goal(s). It is unknown to the researcher how long the Transition Grid has been included in the IEP form used in Pennsylvania. Yet, it seems that the schools lacked knowledge and/or training regarding how to input information correctly into the Transition Grid.

**Measurable annual goals that enable achievement of post-secondary goals.**

IDEA 2004 requires that students who are eligible to receive special education and related services have measurable annual goals (and in some cases short-term objectives) in the IEP. Annual goals allow for students with disabilities to have access to and progress in the general curriculum. They provide a means to determine (a) what skills are most important for a student to learn, (b) whether the services are appropriate to meet student needs, and (c) whether the student is able to make effective progress.

In the present study, all of the IEPs included annual goals, with a range from 1 to 14. IDEA 2004 requires that at least one annual goal support the post-secondary goal for each targeted outcome area. Therefore, any annual goals that in some way could be considered supportive of a student progressing toward the achievement of post-secondary goals were marked as supportive. For education/training, employment, and independent living, 17%, 28%, and 48%, respectively, of IEPs were not in compliance with regard to having at least one annual goal support the post-secondary goal. These findings significantly are higher than those found by Landmark and Zhang (2012). The lack of annual goals that support post-secondary goals seems to indicate that the schools may not have realized the fundamental connection that needs to exist between

these two types of goals. In other words, post-secondary goals should establish a base for determining all other aspects of education.

**Support for 4 S Strategies.** Schlossberg et al. (2005) maintained that individuals are able to manage the stress of a transition with greater ease when a variety of strategies have been employed. The conceptualization of compliance with the transition mandates of IDEA 2004 relates to the conceptual framework 4 S of Strategy. IDEA 2004 requires that schools meet, at the very least, minimum standards with regard to transition planning for students with disabilities. In doing so, it is ensured that schools are able to provide each student a coordinated set of activities that have been designed to produce a successful transition from school to post-school activities (i.e., education/training, employment, and independent living, if appropriate). In the present study, although data showed that the public cyber charter schools were doing well with regard to some transition component requirements, most IEPs did not meet the minimum standards, which are equivalent to full compliance. This finding seems to indicate that IEP team members may lack full understanding of the letter of the law and its underlying intent. Thus, it is possible that teacher preparation programs and/or professional development opportunities for teachers are falling short in terms of the information that they provide regarding compliance with IDEA 2004.

**To what extent do the transition components of the IEPs reflect incorporation of evidence-based best practices in transition?** In the present study, 11 questions from the data collection instrument addressed the level of incorporation of evidence-based practices in transition. A composite evidence-based practices score was calculated for the 236 IEPs included in this study. The overall level of incorporation

of evidence-based practices was 7.06 ( $SD = 1.50$ ). The range of possible scores was 0 through 11, with 0 indicating that there was no evidence of the practices in the IEPs, and 11 indicating that there was evidence of all of the practices in the IEPs. Like the composite compliance score, this finding cannot be compared directly to any previous research regarding compliance because of the different manners in which compliance has been conceptualized, but it can be compared in general. Landmark and Zhang (2012) collapsed questions regarding best practices into eight categories. They found that almost five out of eight practices were evident in the IEPs reviewed in their study ( $M = 4.89$ ,  $SD = 1.469$ ). These similar findings indicate that evidence-based practices in transition are incorporated into transition planning in public cyber charter schools at approximately the same level as they are in traditional school settings. Although it would be ideal for all of the evidence-based practices in transition to be incorporated into the IEP, because IDEA 2004 does not mandate that all of the practices be included, this finding is not unexpected.

In addition to the overall view of the level of incorporation of evidence-based practices, individual evidence-based practices also were examined. They included: (a) paid or unpaid work experience, (b) employment preparation program participation, (c) general education inclusion, (d) parent/family involvement (e) social skills training, (f) daily living training, (g) self-determination training, and (h) community/agency collaboration. Each evidence-based practice and the major findings related to the components are discussed in the following sections.

**Paid or unpaid work experience.** The most heavily researched evidence-based practice is work experience (Kohler, 1993; Landmark et al., 2010; Test, Mazzotti,

et al., 2009). Test, Mazzotti, et al. (2009) identified work experience as a predictor for both post-school education and employment. Yet, findings from the present study indicated that a mere 28% of IEPs provided evidence that students had participated or planned to participate in work experience. Of the IEPs that indicated work experience participation, 12% of were paid, while 11% were unpaid. Interestingly, post-school outcomes of successful employment are similar regardless of whether work experiences are paid or unpaid (Colley & Jamison, 1998; Karpur, Clark, Caproni, & Sterner, 2005). This finding was surprising considering the surplus of previous research that validates this practice. However, Landmark and Zhang (2012) also reported a low rate of work experience (40%).

For the present study, there are several possible explanations for this finding. First, as schools continue with their efforts to maintain the requirements for increasing student academic achievement, they are often reluctant to devote time and funding to providing students with work experiences (Landmark et al., 2010). Second, it is unknown whether school personnel have an understanding of work experience and/or how it can be incorporated into an IEP. Third, as public cyber charter schools, which primarily serve students from all over the state of Pennsylvania online, it is likely that facilitating relationships between each cyber school and natural partners (i.e., chambers of commerce and other employer networks) that could support and enhance these experiences for students is a challenging task (Carter et al., 2009). Thus, it might be worthwhile for the cyber schools to develop stronger and broader relationships with local businesses because the extent to which schools are able to draw upon the

knowledge, connections, and opportunities of area employers is likely to affect their ability to provide high-quality work experiences for students (Carter et al.).

**Employment preparation program participation.** Although the public cyber charter schools ostensibly were not providing work experiences, they were providing students the opportunity to engage in employment preparation. In fact, 89% of IEPs provided evidence that students had participated or planned to participate in a program. This finding is encouraging, as previous studies have found that students with disabilities who participated in an employment preparation program had a higher probability of employment (Baer et al., 2003; Colley & Jamison; Hasazi et al., 1989) or engagement in post-secondary education (Benz et al., 1997; Wolffe & Kelly, 2011). Although Landmark and Zhang (2012) also found that a high percentage (76%) of IEPs had provided evidence of student participation in this evidence-based practice, the types of employment preparation programs distinctively were different.

Unique to the present study, was that 84% of IEPs indicated that students had participated or planned to participate in employment preparation via web-based programs. Although unexpected, it seems practical that a cyber school would select web-based programs to allow students to access employment preparation. More specifically, the web-based programs utilized by the cyber schools were Keys2Work and Naviance.

**General education inclusion.** IDEA 2004 and NCLB (2002) not only require schools to ensure that students with disabilities access the same general curriculum as their peers without disabilities, but state explicitly that access to the general curriculum is the key to success for students with disabilities, even those with the most extensive

support needs (Carter, Sisco, Brown, Brickham, & Al-Khabbaz, 2008; West & Whitby, 2008). Although it was reported that 87% of students spent 80% or more of the school day inside the (virtual) general education classroom, the current focus of inclusive practices has shifted away from where a student receives his or her educational program to what a student is taught (Wehmeyer, 2006). Thus, advocates of inclusive practices for all students with disabilities are moving beyond access to the general curriculum, and are promoting participation and progress in the general curriculum.

Many teachers have remained firm in their belief that providing participation and progress in the general curriculum can be difficult to achieve at the secondary level because of the nature of most secondary classrooms (e.g., heightened emphasis on academic performance, swifter instructional pacing, traditional lecture format, and focus on individual seatwork (Carter et al., 2008; Dymond et al., 2006). However, online learning programs have been able to offer an alternative to the traditional education setting. In an online environment (e.g., a public cyber charter school), students with a variety of educational needs have engaged successfully in learning (Cavanaugh et al., 2013; Watson & Gemin, 2008). In fact, students with disabilities are benefiting from distance education opportunities because of the ability of online courses to meet their unique needs. Recent research has found that essential elements of instructional design, which directly impact course usability by students with disabilities, are present in the majority of contemporary courses (Keeler & Horney, 2007). Thus, online learning options might resolve past issues that could have prohibited participation and progress in the general curriculum for some students with disabilities.

Previous research has shown that students served exclusively in inclusive educational settings, and who exited school with a standard diploma, as opposed to a certificate, had higher levels of employment one year after school completion (Benz et al., 2000; Hudson et al., 1988; Rabren et al., 2002; Test, Mazzotti, et al., 2009; Williams-Diehm & Benz, 2008; Wise & Matthews, 1987). Additionally, the likelihood of being enrolled full-time in post-secondary education also was greater (Flexer et al., 2011). Students were more likely to live independently (Test, Mazzotti, et al.), and to have experienced increased community involvement (Colley & Jamison, 1998), including improved participation in recreation and leisure activities (Williams-Diehm & Benz). Therefore, it was a promising finding, in the present study, that all of the students were projected to receive a standard diploma.

It is a critical aspect of educating students with disabilities that effective supports, services, and strategies are employed in order to facilitate learning of the core curriculum by all students. In the present study, the IEPs indicated that most students (79%) received itinerant support. That is, that those students received special education supports and services provided by special education personnel for 20% or less of the school day. Few students (20%) received supplemental support (i.e., more than 20% of the school day, but less than 80%), and even less (1%) received full-time support (i.e., 80% or more of the school day).

IDEA 2004 is aligned with efforts to improve education outcomes for all students with disabilities. Therefore, as required by law, all students with disabilities must be included in the state and local assessments. In addition, students must be provided

with appropriate accommodations or an alternate assessment, as determined to be necessary by the IEP team members, and as documented in the IEP.

In the present study, state assessment data could not be collected for every student because the state assessments are not administered at every grade level. As a result, evidence of state assessment participation was available for 202 students. The majority of students who participated in the state assessments (i.e., PSSA and Keystone Exams) did so with appropriate accommodations (Chapter 4), while 6% of students participated in the alternate assessment (i.e., PASA). Therefore, because the students that were eligible to participate in the state assessments were given appropriate accommodations or an alternate assessment, as determined to be necessary by the IEP team members, and as documented in the IEP, 86% of IEPs provided evidence that the state assessments were supportive of general education.

**Support for 4 S Support.** As an evidence-based practice, general education inclusion relates to the conceptual framework 4 S of Support. Schlossberg et al. (2005) posited that individuals in transition might receive pre-transition support from the physical environment. Therefore, as applied to the present study, students with disabilities were able to receive support through their access to the (virtual) general education classroom.

Cyber schools are bound to the same federal and state laws that govern the education of students with disabilities, which also includes access to the general curriculum. Although IDEA 2004 does not define where access to the general curriculum must take place, the IEPs from the public cyber charter schools provided evidence that the least restrictive environment most often was the (virtual) general

education classroom. Therefore, it seems that the public cyber charter schools are providing almost all students an education program that is replete with (a) access to the general education context and general curriculum, (b) appropriate special education supports and services, and (c) inclusion in the state assessment that is most appropriate.

**Parent/family involvement.** A considerable amount of research has concluded that parent/family involvement in transition planning practices positively impacts post-school achievement in all target outcome areas (Cobb & Alwell, 2009; Fourqurean et al., 1991; Heal et al., 1990; Lindstrom & Benz, 2002; Schalock et al., 1986; Schalock et al., 1992; Test, Fowler, et al., 2009; Test, Mazzotti, et al., 2009). Therefore, it is not surprising that 97% of the IEPs provided evidence that a parent/guardian had contributed to the development of the transition components of the IEP. Considering that 99% of IEPs provided evidence that a parent/guardian had attended the IEP meeting during which transition was discussed, this finding indicates that more often than not, when a parent/guardian attended a meeting, the parent/guardian contributed to the meeting in a meaningful way.

**Support for 4 S Support.** As an evidence-based practice, parent/family involvement relates to the conceptual framework 4 S of Support. Individuals in transition might receive pre-transition support from interpersonal support systems (Schlossberg et al., 1995). Therefore, as applied to the present study, students with disabilities were able to receive a great deal of support through interpersonal support from family. Although not measured directly in the present study, the fact that the IEPs of so many students indicated access to the (virtual) general education classroom likely

means that students have been able to form friendships with their peers without disabilities. The importance interpersonal support provided by peers without disabilities should not be discounted, because as potential members of a natural support network, they have the potential to contribute greatly to student achievement of post-school activities.

**Social skills training.** The ability to interact effectively with others is crucial to success across all targeted outcome areas (Wagner et al., 2005). In the present study, 25% of the IEPs confirmed that students were receiving social skills training or that the student had appropriate social skills. Social skills were evidenced more frequently in the form of an annual goal, rather than as a transition service. Some IEPs provided documentation that the students with deficits in this area often met with a (virtual) therapy group, facilitated by a social skills therapist, in order to practice their social skills with each other. Overall, this finding was much lower than the 77% of IEPs found by Landmark and Zhang (2012) that provided evidence for this practice. It is possible that due to differences in the breakdown of students in each disability category that the majority of students included in the present study did not need social skills training.

**Daily living training.** Possession of functional, daily living skills has been identified in previous research to predict successful independent living post-school (Heal et al., 1998; Test, Mazzotti, et al., 2009; Wagner et al., 2005). Around half of the IEPs (53%) indicated that students were receiving functional, daily living skills training or had appropriate daily living skills training. Of those students who were receiving this type of skill training, most IEPs did not indicate training for typical daily living skills (e.g., self-care, home-keeping). This finding was most likely due to the large number of

students with a disability category specific learning disability, who would not necessarily have skill deficits in those areas. Instead, many IEPs indicated that students were participating in a web-based program to increase their financial literacy skills.

Other IEPs revealed a rather noteworthy finding. Some students were receiving functional, daily living skills training to be able to manage their health care needs. This finding is promising, as recent research has identified a need for transition planning to include health care (Repetto et al., 2013). Many of the students with health care needs (e.g., students with a disability category other health impairment) had a transition service related activity to utilize the Transition Health Care Checklist: Transition to Adult Living in Pennsylvania (PA Department of Health, 2010). Other IEPs included goals or activities related to increasing student responsibility for scheduling their medical appointments and/or managing their medication.

**Self-determination training.** Previous research has shown that when students with disabilities receive training in self-determination skills that it can improve post-school outcomes in the areas of education and employment (Benz et al., 2000; Gerber, Ginsberg, & Reiff, 1992; Lindstrom & Benz, 2002; McDonnell & Crudden, 2009; Test, Mazzotti, et al., 2009), as well as independent living (Wehmeyer & Palmer, 2003). During self-determination training, students receive explicit instruction on a variety of skills that might include: (a) decision-making; (b) problem solving; (c) goal setting; (d) self observation, evaluation, and reinforcement; and (e) student-directed learning (Wehmeyer, 2005).

It was encouraging that 53% of IEPs indicated that students were receiving self-determination training or had appropriate self-determination skills. This finding indicates

a significant improvement over the 26% found by Landmark and Zhang (2012). In the present study, moderate findings were not unexpected, as self-determination training is not mandated by IDEA 2004.

**Support for 4 S Self.** As an evidence-based practice, self-determination training relates to the conceptual framework 4 S of Self, specifically as a psychological resource. That is, that it is an internal resource that is drawn upon to cope with stress during a transition (Schlossberg et al., 1995). Therefore, as applied to the present study, all students with disabilities should receive self-determination training. Many of the students that were receiving this type of training had a transition service activity to utilize the Pennsylvania Youth Leadership Network: Secondary Transition Toolkit (PYLN, 2008). The goal of the PYLN is: “To develop the self-determination, empowerment, and leadership of youth, that promotes successful post-school outcomes in the areas of education, employment, independent living, and health and wellness among youth and young adults throughout Pennsylvania” (p. 7).

Although the PYLN appears to be a great resource for students to utilize in order to build a variety of skills, it is also important that teachers develop their own understanding of self-determination. Teachers should receive training on self-determination with emphasis placed how it can be incorporated into academic instruction. Furthermore, training should be responsive to diverse racial/ethnic backgrounds, as research has concluded that various cultures conceptualize self-determination in distinctive ways (Zhang & Benz, 2006).

**Community/agency collaboration.** This evidence-based practice remains the least substantiated practice in transition (Cobb & Alwell, 2009; Test, Fowler, et al.,

2009). Although a few studies (Heal et al., 1990, Benz et al., 1997) have found evidence to suggest that community/agency support impacts post-secondary employment, previous and current research have found that connections between students, families, teachers, and agency/service providers are not forged during transition planning.

Lawson and Everson (1994) were unable to find evidence in the IEPs that IEP team members had tried coordinate school services with adult services. In fact, agency/service representatives rarely were involved in IEP meetings. Landmark and Zhang (2012) also found agency/service representatives were the least likely group of individuals to participate in the IEP meetings. In the present study, only 7% of IEPs noted some form of agency involvement, although often no further explanation was provided. In 11% of IEPs, there was evidence that agency information (i.e., an address and phone number) was provided to the students and/or parents/guardians.

These findings seem to indicate that the schools place the responsibility on the students and/or their parents/guardians to contact agencies for information on the services that are available and/or how to obtain those services. These findings also might indicate that IEP team members are not knowledgeable themselves about the services that are available, eligibility requirements, and/or how to obtain services. This finding seems to suggest that the schools have not attempted to build relationships with agency/service representatives, as evident by a lack of involvement in IEP meetings.

**Support for 4 S Support.** As an evidence-based practice, community/agency collaboration relates to the conceptual framework 4 S of Support. Schlossberg et al. (2005) stated that individuals in transition might receive pre-transition support from

institutional support systems. Therefore, as applied to the present study, students with disabilities should receive support from occupational organizations, religious institutions, social welfare, and/or other community support groups. However, as discussed, evidence of institutional support was lacking severely in the IEPs, which could negatively impact student outcomes. As previously mentioned, in the present study, the attendance and/or contribution of agency/service representatives were the lowest of any other individual. In fact, just one IEP indicated that an agency/service representative had been invited to an IEP meeting.

**Support for 4 S Strategies.** The conceptualization of the incorporation of evidence-based practices in transition relates to the conceptual framework 4 S of Strategy. IDEA 2004 requires that all practices be grounded in quality research to the maximum extent possible (Odom et al., 2005). As a result, researchers have begun to address the need for all practices in transition to be validated through empirical evidence (Cobb & Alwell, 2009; Test, Fowler, et al., 2009; Test, Mazzotti, et al., 2009). This recent focus has incited the expectation that evidence-based practices further facilitate the transition from school to post-school life for students with disabilities (Greene, 2003). However, this is possible only if the evidence-based practices actually are incorporated into the IEPs.

In the present study, the IEPs provided evidence that some, not all, of the practices have been incorporated into transition planning at the public cyber charter schools. This finding seems to indicate that IEP team members may lack knowledge of evidence-based practices in transition, and how to incorporate them into academic instruction or transition services. Most teacher preparation programs and/or

professional development opportunities are not focused on transition. In addition, incorporating some of the evidence-based practices (e.g., work experience) appears to be more difficult when constrained to a virtual environment. Thus, innovation will be necessary going forward.

## **Research Question 2**

The second research question (i.e., “How do the demographic characteristics of students with disabilities impact transition planning practices evident in the IEPs of public cyber charter schools?”) was answered through two sub questions that addressed the association between each of the independent variables (i.e., disability category, racial/ethnic background, gender, and grade level) and the dependent variables (i.e., IDEA 2004 compliance questions and evidence-based practices questions). Multiple logistic regression was employed. Several statistically significant results were found. Therefore, disability category, racial/ethnic background, gender, and grade level were shown to influence transition planning as evident in the IEPs of public cyber charter schools.

**Disability category.** There was an association between each of the four disability categories (i.e., autism, emotional disturbance, other health impairment, and specific learning disability) and whether the IEP contained evidence that the independent living goal had been based upon at least one age-appropriate transition assessment. Therefore, the IEPs of any selected disability category, when compared to the IEPs of all other disability categories, were less likely to have indicated that a the results of at least one age-appropriate transition assessment contributed in the development of the post-secondary goal for independent living. This finding might indicate that IEP team members included post-secondary goals for independent living

regardless of whether the students actually needed them. IDEA 2004 requires a post-secondary goal for independent living only if appropriate.

The data indicated an association between the disability category emotional disturbance and the compliance-related task of correctly filling out the Transition Grid. Specifically, it was more likely for the IEPs of students with the disability category emotional disturbance not to have the box at the top of the grid section checked Yes. This finding indicates that the IEPs of students with emotional disturbance were less likely than the IEPs of students from any other disability category to have one or more measurable annual goal related to a specific post-secondary goal. Because research has shown that positive outcomes (e.g., meaningful employment) seem to lie beyond the grasp of individuals with emotional disturbance (Lane & Carter, 2006), this finding is troublesome. Without measurable annual goals, students with emotional disturbance might have experienced limited access to the general curriculum. Thus, their progress toward mastery of annual goals might have been hindered, which could impact their achievement of post-secondary goals.

The data revealed a relationship between the disability category specific learning disability and the compliance-related task of referencing all of the annual goals on the Transition Grid. That is, that when compared to students from any other disability category, the IEPs of students with a specific learning disability were more likely to have had all of their measurable annual goals referenced as services in the Transition Grid. This finding was promising. It indicates that one or more annual goal supported the post-secondary goal(s). Therefore, it appeared that students were working daily toward goals that improved their chances of achieving their desired outcomes. However, for

one outcome area, independent living, it was more likely for the IEPs of students with a specific learning disability not to have a measurable post-secondary goal. Regardless of whether or not a student had a post-secondary goal for a targeted outcome area, whether the goal was considered measurable or not cannot be considered the fault of the student. Perhaps IEP team members took less care when writing post-secondary goals for independent living for students with a specific learning disability because they did not perceive students with a specific learning disability to need much assistance in this outcome area, as opposed to a students with more extensive support needs. As previously mentioned, IDEA 2004 requires a post-secondary goal for independent living only if appropriate.

The data revealed a relationship between each of the four disability categories and the evidence-based practice general education inclusion. Specifically, the IEPs of students from any one of the noted disability categories, when compared to all other disability categories, were more likely to indicate that the students (a) were spending 80% or more of the school day inside the (virtual) general education classroom, and (b) were receiving an itinerant amount of special education supports (i.e., special education supports and services provided by special education personnel for 20% or less of the school day). Again, this finding is promising. An inclusive approach to education demands that all students with disabilities, including those with extensive support needs, have a right to equal access to the general education context and general curriculum (Jackson, Ryndak, & Wehmeyer, 2010).

Further analysis of the data showed that the IEPs of students with a disability category autism were more likely than the IEPs of students from any other disability

category to have provided evidence that the student was participating in social skills training. This finding is not unexpected, as it widely is known that students with autism often have pervasive socialization deficits (Weiss & Harris, 2001). Therefore, it is a promising finding that students with autism are receiving training in this evidence-based practice because the ability to engage socially with others had been found to enhance transition outcomes (Benz et al., 1997; Heal et al., 1990; Test, Mazzotti, et al., 2009; Wagner et al., 2005). However, the IEPs of students with autism were less likely than the IEPs of students from any other disability category to have provided evidence that the IEP team members had considered and/or addressed all of the required transition services. It is uncertain why this outcome occurred.

**Racial/ethnic background.** An association was identified between racial/ethnic background and the IDEA compliance variable concerning transition services. The data showed that the IEPs for Black students were less likely to have provided evidence that 100% of the required transition services had been considered and/or addressed. An association also was identified between racial/ethnic background and two of the evidence-based practices. The IEPs for Black students, when compared to all others, were more likely not to have provided evidence that students had participated or planned to participate in paid or unpaid work experience. Interestingly, this finding was also true for White students. A possible explanation, simply, is that very few IEPs actually indicated participation in work experience.

The IEPs of Black students, when compared to all others, were more likely to have indicated that the students were receiving a supplemental amount of special education supports (i.e., more than 20% of the day, but less than 80% of the day).

Research has documented that minority students, especially Black students, have been overrepresented in certain disability categories including (a) mental retardation, (b) emotional disturbance, and (c) multiple disabilities (Skiba, Poloni-Staudinger, Gallini, Simmons, & Feggins-Azziz, 2006). This has resulted in disproportionality regarding access to the general education context and content. Although it seems in the present study that percentage of time spent inside the (virtual) general education classroom was not influenced by the racial/ethnic background Black, it might be possible that the identified amount of special education supports was influenced. In addition, it might be possible that the racial/ethnic background Black also influenced why it was less likely that IEP team members had not considered and/or addressed all of the transition services that are available.

**Gender.** The data revealed a relationship between gender and the evidence-based practice parent/family involvement. Specifically, the IEPs of female students were less likely to have provided evidence that a parent/guardian had contributed to the transition planning process. Research has documented that parent/family involvement is crucial for students because parents/guardians act as role models with regard to setting and working toward post-secondary goals (Field & Hoffman, 1999). Parent/family involvement, arguably, might be more crucial for female students whom research has shown experience poorer outcomes when compared to young men with disabilities (Test, Aspel, & Everson, 2006). Landmark, Zhang, & Montoya (2007) identified a number of barriers (e.g., work-related, communication-related) to parent/family involvement in the transition process; however, it is unknown whether any

of these barriers contributed to the lack of parent/family involvement for the female students included in the present study.

**Grade level.** A relationship was indicated between grade level and evidence that a post-secondary goal had been based on at least one age-appropriate transition assessment for all targeted outcome areas. That is, that the IEPs of students in higher grade levels had a greater probability of providing evidence that the results of one or more transition assessment had influenced the development of post-secondary goals for education/training, employment, and/or independent living. With regard to transition services, the IEPs of students in higher grade levels seemed to show that IEP team members were more likely to have considered and/or addressed 100% of transition services than students in lower grade levels. Finally, the IEPs of students in higher grade levels also revealed that there was increased probability that all of the students' annual goals had been referenced in the Transition Grid.

The data indicated relationships between student grade level and several evidence-based practices. The IEPs of students in higher grade levels were more likely to have provided evidence of parent/family involvement and community/agency involvement. Students in higher grade levels had an increased likelihood of their IEPs providing evidence that they had participated or planned to participate in paid or unpaid work experience. The IEPs of students in higher grade levels frequently indicated that students (a) were receiving social skills training or had appropriate social skills; (b) were receiving functional, daily living skills training or had appropriate functional, daily living skills; and/or (c) were receiving self-determination training or had appropriate self-determination skills.

Denkyirah (2003) also examined the relationship between grade level and transition documentation concerning compliance with IDEA 1997. The results showed that transition documentation within the IEPs of students in their junior year better met the requirements than the IEPs of freshman, sophomore, and senior students.

Denkyirah was unsure why the IEPs of seniors did not improve.

In the present study, the data seemed to show that the IEPs of students in higher grade levels provided more evidence of both IDEA compliance variables and evidence-based practices variables than those of students in lower grade levels. It seems reasonable to conclude that the closer a student gets to graduation (i.e., a higher grade level), that the IEP team members will have had extensive opportunities, in the form of annual IEP meetings, to have planned and implemented an effective transition plan that is compliant with IDEA 2004 and incorporates evidence-based practices in transition.

Students in higher grade levels had a greater probability of spending 79-40% of the day inside the (virtual) general education classroom. As previously mentioned, one explanation is that numerous teachers believe that participation and progress in the general curriculum is difficult to achieve at the secondary level (Carter et al., 2008; Dymond et al., 2006). Thus, it seems plausible to conclude that general education teachers should (a) increase their collaboration with special education teachers that exclusively are trained in how to modify and/or adapt the general curriculum for students with disabilities, including those with extensive support needs (Walther-Thomas, Bryant, & Land, 1996); and (b) participate in professional development opportunities to learn more about how general education instructional strategies can be utilized to provide increased access to, participation and progress in the general curriculum to students

with disabilities, including those with extensive support needs (Copeland & Cosby, 2010).

**Support for 4 S Self.** Self refers to what an individual brings to the transition, and is a complex resource, in that is unique to each individual (Schlossberg et al., 1995). Personal and demographic characteristics are able to influence multiple aspects of a transition. The independent variables of disability category, racial/ethnic background, gender, and grade level in the present study relate to the conceptual framework 4 S of Self. Many relationships both positive and negative were identified between each of the independent variables and the dependent variables of this study. For example, it was a positive finding in the IEPs of students with autism that evidence of social skills training was provided. Yet, it was negative finding in the IEPs of Black students that 100% of the required transition services had not been considered and/or addressed.

These findings extend previous research (Denkyirah, 2003; Landmark & Zhang, 2012; Powers et al., 2005; Tillman & Ford, 2001) that also has concluded that personal and demographic characteristics influence transition planning. Therefore, potential issues concerning specific minority sub-groups must be brought to the forefront of IEP meetings to ensure that all students, regardless of their personal and demographic characteristics, receive the services and supports that are needed. IEP team members must be conscious of any personal biases that may exist due to the personal and demographic characteristics of students, and learn to set them aside so that they do not have a negative effect on the transition planning process. In addition, training for school personnel who are involved in transition planning must focus upon sensitivity toward

students that are from culturally and linguistically diversity backgrounds. There also is a need for transition services to be responsive to disability category and gender.

### **Research Question 3**

The third research question that this study addressed asked, “Is there a relationship between compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based practices in transition?” To answer this question, composite compliance and evidence-based practices scores were calculated. Next, a Pearson’s product-moment correlation was calculated between the compliance and evidence-based practices composite scores. A statistically significant ( $p < 0.01$ ) moderate correlation of  $r = 0.306$  was found. Thus indicating that as the level of compliance increased so did the level of incorporation of evidence-based practices in transition, as evident in the IEPs. This level of correlation seems reasonable because only some of the evidence-based practices (e.g., parent/family involvement) have been mandated by IDEA 2004.

In their study, Landmark and Zhang (2012) calculated a Spearman’s correlation coefficient in order to determine if there was a correlation between overall compliance and evidence of practices in their study. They found a statistically significant ( $p < 0.001$ ) moderate correlation of  $r = 0.429$ . Therefore, they also concluded that a higher level of compliance was related to a higher level of best practices. Although the findings of the two studies are similar, an exact comparison cannot be made because each study conceptualized composite compliance and practices in a different way.

## Implications

### Future Research

The findings from the present study have lead to implications for future research. First, researchers should examine the similarities and differences between transition planning practices evident in the IEPs of students who attend public cyber charter schools with (a) students who attend traditional brick-and-mortar schools, and (b) students who attend public cyber charter schools in a variety of states. This research should employ the data collection instrument utilized in the present study, as well as descriptive statistics so that direct comparisons can be drawn between the educational contexts. These data would be helpful to students with disabilities and their families when selecting an educational setting for optimal learning because effective transition planning practices should be part of any quality special education program.

Second, as previously noted (Chapter 4), the composition of racial/ethnic backgrounds of the students for the sample of the present study and the state significantly were different. Specifically, the number of Black and Hispanic students was not as large. This finding seems to indicate that students with disabilities from minority racial/ethnic backgrounds are not as prevalent in online learning as White students. This finding was surprising as online learning often is touted as a means for expanding learning opportunities to students who might be considered marginalized, and thus, might experience limited access to high-quality education. Therefore, research is needed to examine the issues of digital divides and digital equity as they relate to students with disabilities in public cyber charter schools, with specific attention given to transition planning practices.

Third, longitudinal studies are needed to examine the post-secondary outcomes of students with disabilities who have attended public cyber charter schools. More specifically, studies should address the characteristics of transition planning practices (i.e., the extent that the transition components of the IEPs reflect compliance with the transition mandates of IDEA 2004 and incorporation of evidence-based best practices in transition) to determine if students who have attended public cyber charter schools have achieved their post-secondary goals. Post-secondary data illustrating the outcomes of students with disabilities as they move from secondary school into adult roles would contribute immensely to the fields of special education and distance education. Because the number of students with disabilities enrolling in cyber schools has been projected to continue to increase (Hassell & Terrell, 2004; Repetto et al., 2010; Rhim & Kowal, 2008), these data are central to educating and preparing students with disabilities effectively in online environments.

Fourth, although data was collected on the IEPs for each student regarding the percentage of time spent inside the general education classroom, researchers in the fields of special education and distance education need to work together to determine an explicit definition of the general education classroom as it relates specifically to virtual environments, such as public cyber charter schools. A clearer explanation of what constitutes (a) total hours the student spends in the regular classroom per day, (b) total hours in a typical school day, and (c) the specific calculation used to determine the percentage of time spent inside the general education classroom specific to virtual environments would be advantageous to this discussion. Likewise, it also would be relevant to describe the virtual educational environments that are considered to be

outside the general education classroom, and how the percentage of time students with disabilities spend in those environments is calculated.

Fifth, there appears to be a need for an IEP form to be developed that is unique to online learning and virtual environments. This IEP form not only should include all of the necessary and standard compliance-related questions and explanations found on a typical IEP form, but should be adapted and/or extended to include additional questions and explanations related to instructional practices and/or accommodations that are unique to online learning and virtual environments. Evidence-based practices also could be included to facilitate greater incorporation for all students, as determined to be appropriate.

Sixth, case studies that describe the educational experiences of students with extensive support needs (e.g., mental retardation, multiple disabilities) who attend public cyber charter schools are needed. These studies could employ alternative or mixed research methods to provide richer data. For example, research could focus upon the IDEA 2004 requirement of allowing students to participate and progress in the general curriculum by examining aspects of (a) curriculum, (b) instructional delivery/organization of learning environments, (c) student participation, (d) materials, and (e) assessment. Similar to Carter et al. (2008), research could focus on peer interactions between middle and high school age students with extensive support needs and students without disabilities in the (virtual) general education classroom. These findings certainly would extend the extant literature by providing information about support strategies for students within the general education classroom, including strategies that might be exclusive to virtual environments. Finally, research could focus

on the transition planning practices evident in the IEPs of students with extensive support needs who attend public cyber charter schools to determine if differences, such as those identified in previous research for students who attend traditional schools, also exist in virtual environments.

### **Limitations**

There were several limitations in the study. First, this study involved a document review that used archival documents for data. This limitation acknowledges that the researcher had no way of knowing what the IEP process actually entailed, including the development of the IEPs. Yet, because the IEP is a legal document that commits the school to provide a student with a special education program and related services that will meet his or her individual needs, it can be evaluated to ensure that the school is in compliance with all legal requirements (Yell, 2012).

A second limitation of the present study is related to the sample of the study. Only two public cyber charter schools in Pennsylvania agreed to participate in this study. Had more schools agreed to participate, and had provided additional data, the results of the study might have been different. Third, because of the large number of dependent variables, there were too many hypothesis tests included in this study. Even though the logistic regression analyses produced several statistically significant results, there was an increased risk of Type 1 error. However, this issue should not be considered too problematic because this study was not seeking to confirm cause and effect, but rather the relationship between the variables.

### **Conclusion**

Previous research has examined both compliance with the transition component requirements of IDEA 1990, 1997, and 2004, and the incorporation of evidence-based

practices in transition planning as evidenced in the IEP (Blankenship, 2004; Grigal et al., 1997; Landmark & Zhang, 2012; Powers et al., 2005). Additionally, previous research has studied the impact of student demographic characteristics on transition planning (Blankenship, 2004; Getzel & deFur, 1997; Grigal et al., 1997; Landmark & Zhang; Powers et al., 2005; Tillmann & Ford, 2001). The present study extended the outcomes of those previous studies by investigating the characteristics of transition planning practices within the context of public cyber charter schools. Consistent with those studies, the present study found (a) moderate levels of compliance with the transition component requirements of IDEA 2004, (b) moderate levels of incorporation of evidence-based practices, and (c) a moderate correlation between compliance and evidence-based practices composite scores. Furthermore, the independent variables of disability category, racial/ethnic background, gender, and grade level were found to influence transition planning practices.

Practical implications can be drawn from the present study. The present study contributes to both research and practice because it adds to the existing literature base in the fields of special education and distance education. Until now, no other studies have investigated transition planning practices in public cyber charter schools. As a result, the present study contributes to both research and practice because it adds to the existing research by providing a detailed description of transition planning practices in public cyber charter schools, and ultimately, how students with disabilities are prepared for post-school activities in this context. In addition, by determining the impact of individual demographic characteristic on transition planning practices, public cyber charter schools will be equipped better to address the transition needs of diverse

students with disabilities. Although an occasional unique finding that was exclusive to the public cyber charter school context emerged from the evidence found within the IEPs, it can be concluded that the characteristics of transition planning practices in public cyber charter schools primarily are equivalent to transition planning practices in traditional brick-and-mortar public schools.

APPENDIX A  
DATA COLLECTION INSTRUMENT

**Cyber Charter IEP Data Collection Instrument**

Reviewer's Initials: \_\_\_\_\_

Date Reviewed: \_\_\_\_\_

<p><b>General Information:</b> The data collection instrument consists of three categories of questions: demographic, compliance with IDEA, and evidence-based practices. Descriptive questions are enumerated using the letter <i>D</i>, compliance questions are enumerated using the letter <i>C</i>, and the evidence-based practices are enumerated using the letter <i>P</i>.</p>	
D1	<b>IEP ID:</b> _____
D2	<b>IEP Team Meeting Date:</b> ____/____/____
D3	<b>Age:</b> ____ (or <b>DOB</b> ) ____/____/____
D4	<b>Grade:</b> _____
D5	<p><b>Disability:</b> (Mark 1 for primary disability and 2 for secondary disability.)</p> <input type="checkbox"/> Autism (AU) <input type="checkbox"/> Deaf-blindness (DB) <input type="checkbox"/> Deafness (Deaf) <input type="checkbox"/> Emotional disturbance (ED) <input type="checkbox"/> Hearing impairment (HI) <input type="checkbox"/> Mental retardation (MR) <input type="checkbox"/> Multiple disabilities (MD) <input type="checkbox"/> Orthopedic impairment (OI) <input type="checkbox"/> Other health impairment (OHI) <input type="checkbox"/> Specific learning disability (SLD) <input type="checkbox"/> Speech or language impairment (SLI) <input type="checkbox"/> Traumatic Brain Injury (TBI) <input type="checkbox"/> Visual impairment, including blindness (VI)
D6	<p><b>Gender:</b></p> <input type="checkbox"/> Male <input type="checkbox"/> Female
D7	<p><b>Racial/Ethnic Background:</b></p> <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black (Non-Hispanic) <input type="checkbox"/> Hispanic <input type="checkbox"/> White (Non-Hispanic) <input type="checkbox"/> Multicultural <input type="checkbox"/> Other: _____

P1	<p><b>What is the student's projected graduation type?</b></p> <p><input type="checkbox"/> Standard Diploma</p> <p><input type="checkbox"/> Recognition of Achievement</p>
D8	<p><b>Who <u>attended</u> (e.g., in person, conference call, written input, and/or Elluminate <i>Live!</i> or Blackboard session) the IEP meeting that addressed transition? (Mark all that apply.)</b></p> <p><input type="checkbox"/> Student</p> <p><input type="checkbox"/> Parent/Guardian/Surrogate</p> <p><input type="checkbox"/> General Education Teacher</p> <p><input type="checkbox"/> Special Education Teacher</p> <p><input type="checkbox"/> Local Education Agency Rep</p> <p><input type="checkbox"/> Career/Tech Ed Rep</p> <p><input type="checkbox"/> Community Agency Rep</p> <p><input type="checkbox"/> Other:</p> <p>_____</p>
C1	<p><b>Did <u>all</u> of the required individuals (i.e., Parent/Guardian, Special Education Teacher, and Local Education Agency Rep) attend and/or contribute to the meeting?</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>
P2	<p><b>Is there any indication that the parent/guardian contributed to the development of the transition components of the IEP? (Note: Only mark Yes if Parent/Guardian was marked on D8.)</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>
C2	<p><b>Is there any indication that the parents have been advised that upon age of majority rights transfer to the student? (Must be advised by the time the student is 20 years old.)</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> N/A</p>
D9	<p><b>Does the IEP (Present Levels) include information regarding agency involvement?</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>
P3	<p><b>Does the IEP provide evidence that information on one or more community agency/service has been provided?</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>
C3	<p><b>For transition services that are likely to be provided or paid for by other agencies (e.g., postsecondary education, integrated employment, continuing and adult education, adult services, independent living or community participation), is there evidence that representatives of the agencies/services were invited with the consent of either the parent or student who has reached the age of majority to the IEP meeting?</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>

	<p><b>A. If agencies were NOT invited, is it too early to determine that outside agency involvement is needed?</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
	<p><b>B. If agencies were NOT invited, was it unlikely that an outside agency would be providing or paying for services?</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
	<p><b>C. If agencies were NOT invited, did parents refuse to consent to inviting outside agency personnel?</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
C4	<p><b>Are present levels of academic achievement and functional performance included?</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
D10	<p><b>If the answer to C4 was Yes: What components of present levels of academic achievement and functional performance are present?</b> (Mark all the apply.)  <input type="checkbox"/> Present levels of academic achievement (e.g., most recent evaluation of the student, results of formative assessments, curriculum-based assessments, transition assessments, progress toward current goals)  <input type="checkbox"/> Present levels of functional performance (e.g., results from a functional behavioral assessment, results of ecological assessments, progress toward current goals)  <input type="checkbox"/> Present levels related to current postsecondary transition goals if the student's age is 14 or younger if determined appropriate by the IEP team (e.g., results of formative assessments, curriculum-based assessments, progress toward current goals)  <input type="checkbox"/> Parental concerns for enhancing the education of the student  <input type="checkbox"/> How the student's disability affects involvement and progress in the general education curriculum  <input type="checkbox"/> Strengths  <input type="checkbox"/> Academic, developmental, and functional needs related to student's disability</p>
C5	<p><b>If the student is age 14 or older, are transition services in place?</b> (Note: A student may be age 13 at the IEP implementation date as long as he/she will turn 14 during the anticipated duration of services and programs noted in the current document.)  <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
C6	<p><b>Is there evidence that the <u>transition services</u> were based on the student's needs, strengths, preferences, or interests?</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No  <input type="checkbox"/> N/A; There are no transition services.</p>
D11	<p><b>Is there a post-secondary goal for <u>education/training</u>?</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No  <input type="checkbox"/> N/A; There is a statement that the area was addressed, but not necessary at this time.</p>

C7	<p><b>If the answer to D11 is Yes: Is there at least one annual goal that supports the student's <u>education/training</u> post-secondary goal?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
D12	<p><b>If the answer to D11 is Yes: What type of <u>education/training</u> goal(s) does the student have?</b> (If more than one education/training goal, only use the first goal. Mark all that apply.)</p> <p><input type="checkbox"/> On-the-job training  <input type="checkbox"/> Technical program/school  <input type="checkbox"/> 2 or 4 year college  <input type="checkbox"/> Other:  _____</p>
C8	<p><b>If the answer to D11 is Yes: Is the <u>education/training</u> goal measurable?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
C9	<p><b>If the answer to D11 is Yes: Is there evidence that the <u>education/training</u> goal has been based on at least one age-appropriate transition assessment?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
D13	<p><b>If the answer to C9 is Yes: Please specify the type of transition assessment.</b> (Mark all that apply.)</p> <p><input type="checkbox"/> Interest inventories  <input type="checkbox"/> Formal or informal interviews with student/parent  <input type="checkbox"/> Other evaluation data  <input type="checkbox"/> Teacher information  <input type="checkbox"/> IEP documentation (i.e., IEP notes only that the goal was based on transition assessment but does not specify type of assessment)</p>
D14	<p><b>Is there a post-secondary goal for <u>employment</u>?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No  <input type="checkbox"/> N/A; There is a statement that the area was addressed, but not necessary at this time.</p>
C10	<p><b>If the answer to D14 is Yes: Is there at least one annual goal that supports the student's <u>employment</u> post-secondary goal?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No</p>

D15	<p><b>If the answer to D14 is Yes: What type of <u>employment</u> goal(s) does the student have?</b>          (If more than one employment goal, only use the first goal. Mark all that apply.)</p> <p><input type="checkbox"/> Full-time  <input type="checkbox"/> Part-time  <input type="checkbox"/> Competitive  <input type="checkbox"/> Supported  <input type="checkbox"/> Sheltered  <input type="checkbox"/> Other:          _____</p>
C11	<p><b>If the answer to D14 is Yes: Is the <u>employment</u> goal measurable?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
C12	<p><b>If the answer to D14 is Yes: Is there evidence that the <u>employment</u> goal has been based upon at least one age-appropriate transition assessment?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No</p> <p style="text-align: center;">•</p>
D16	<p><b>If the answer to C12 is Yes: Please specify the type of transition assessment.</b> (Mark all that apply.)</p> <p><input type="checkbox"/> Interest inventories  <input type="checkbox"/> Formal or informal interviews with student/parent  <input type="checkbox"/> Other evaluation data  <input type="checkbox"/> Teacher information  <input type="checkbox"/> IEP documentation (i.e., IEP notes only that the goal was based on transition assessment but does not specify type of assessment)</p>
D17	<p><b>Employment goal career cluster:</b></p> <p><input type="checkbox"/> N/A; No employment goal  <input type="checkbox"/> N/A; Career interest not indicated  <input type="checkbox"/> Agriculture, food &amp; natural resources  <input type="checkbox"/> Architecture &amp; construction  <input type="checkbox"/> Arts, AV technology, &amp; communication  <input type="checkbox"/> Business management &amp; administration  <input type="checkbox"/> Education &amp; training  <input type="checkbox"/> Finance  <input type="checkbox"/> Government &amp; public administration  <input type="checkbox"/> Health science  <input type="checkbox"/> Hospitality &amp; tourism  <input type="checkbox"/> Human services  <input type="checkbox"/> Information technology  <input type="checkbox"/> Law, public safety, corrections, &amp; security  <input type="checkbox"/> Manufacturing  <input type="checkbox"/> Marketing  <input type="checkbox"/> Science, technology, engineering, &amp; math  <input type="checkbox"/> Transportation, distribution, &amp; logistics</p>

P4	<p><b>Has the student participated in employment preparation programming OR is there any indication that the student will participate in employment preparation programming?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
D18	<p><b>If the answer to P4 is Yes: Please specify the type of employment preparation program(s)?</b> (Mark all that apply.)</p> <p><input type="checkbox"/> CTE classes  <input type="checkbox"/> Community-based instruction  <input type="checkbox"/> Work-based instruction  <input type="checkbox"/> Cooperative classes  <input type="checkbox"/> Life Skills classes  <input type="checkbox"/> Other:  _____</p>
P5	<p><b>Has the student participated in previous paid or unpaid work experience OR is there any indication that the student will participate in any paid or unpaid work experience?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
D19	<p><b>If the answer to P5 is Yes: Please specify the type of work experience?</b> (Mark all that apply.)</p> <p><input type="checkbox"/> Paid employment  <input type="checkbox"/> Unpaid/volunteer experience  <input type="checkbox"/> N/A; The work experience is not specified.</p>
D20	<p><b>Is there a post-secondary goal for <u>independent living</u>?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No  <input type="checkbox"/> N/A; There is a statement that the area was addressed, but not necessary at this time.</p>
C13	<p><b>If the answer to D20 is Yes: Is there at least one annual goal that supports the student's <u>independent living</u> post-secondary goal, if appropriate?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
D21	<p><b>If the answer to D20 is Yes: What type of <u>independent living</u> goal(s) does the student have?</b> (If more than one independent living goal, only use the first goal. Mark all that apply.)</p> <p><input type="checkbox"/> N/A; Not specific  <input type="checkbox"/> Community living (e.g., transportation, recreation)  <input type="checkbox"/> Daily living (e.g., cooking)  <input type="checkbox"/> Self-care (e.g., hygiene, sexuality)  <input type="checkbox"/> Other:  _____</p>
C14	<p><b>If the answer to D20 is Yes: Is the <u>independent living</u> goal measurable (i.e., occurs after graduation AND is an outcome, not a process)?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No</p>

C15	<p><b>If the answer to D20 is Yes: Is there evidence that the <u>independent living</u> goal has been based upon at least one age-appropriate transition assessment?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No  •</p>
D22	<p><b>If the answer to C15 is Yes: Please specify the type of transition assessment.</b> (Mark all that apply.)</p> <p><input type="checkbox"/> Interest inventories  <input type="checkbox"/> Formal or informal interviews with student/parent  <input type="checkbox"/> Other evaluation data  <input type="checkbox"/> Teacher information  <input type="checkbox"/> IEP documentation (i.e., IEP notes only that the goal was based on transition assessment but does not specify type of assessment)</p>
C16	<p><b>Is there evidence that transition services include <u>courses of study</u> that focus on improving academic and functional achievement and will reasonably enable the student to meet post-secondary goals?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
C17	<p><b>Are there transition services in the IEP that focus on improving academic and functional achievement that will reasonably enable the student to meet post-secondary goals?:</b>  <i>Locate the "Transition Grid" in order to answer below:</i></p> <p><b>A. For each targeted post-secondary goal area, is the box at the top of the grid section checked Yes to indicate that there is one or more measurable annual goal(s) related to that post-secondary goal? (Note: Not all goal areas may be targeted for every student.)</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No</p> <p><b>B. For each targeted postsecondary goal area, does the transition grid contain a reference to one or more measurable annual goal(s) [service(s)] addressing a skill need?</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No</p> <p><b>C. Are all measurable annual goals referenced as services in the Transition Grid?</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No</p> <p><b>D. For each targeted postsecondary goal area, does the transition grid contain at least one activity to help a student reach that goal?</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
D23	<p><b>Will the student participate in a state assessment?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No; There is no state assessment administered at the student's grade level.</p>



D27	<p><b>Are there <u>annual goals or objectives</u> that address social skills?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No  <input type="checkbox"/> N/A; The student has appropriate social skills.</p>
P8	<p><b>Is there any indication that the student is receiving self-determination training OR that the student has appropriate self-determination skills?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
D28	<p><b>Are there <u>transition services</u> that address self-determination?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No  <input type="checkbox"/> N/A; The student has appropriate self-determination skills.</p>
D29	<p><b>Are there <u>annual goals or objectives</u> that address self-determination?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No  <input type="checkbox"/> N/A; The student has appropriate self-determination skills.</p>
P9	<p><b>Is there any indication that the student is receiving functional, daily living skills training OR that the student has appropriate functional, daily living skills?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
D30	<p><b>Are there <u>transition services</u> that address functional, daily living?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No  <input type="checkbox"/> N/A; The student has appropriate daily living skills.</p>
D31	<p><b>Are there <u>annual goals or objectives</u> that address functional, daily living skills?</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No  <input type="checkbox"/> N/A; The student has appropriate daily living skills.</p>
D32	<p><b>Which <u>transition services</u> are addressed? (Mark all that apply.)</b></p> <p><input type="checkbox"/> Instruction  <input type="checkbox"/> Course of study  <input type="checkbox"/> Related service(s)  <input type="checkbox"/> Community experience(s)  <input type="checkbox"/> Development of employment and other post-school adult living objectives  <input type="checkbox"/> Acquisition of daily living skills  <input type="checkbox"/> Provision of a functional vocational evaluation</p>

C19	<p><b>Are 100% of the required transition services (i.e., instruction, course of study, related services, community experience, employment and adult living objectives) addressed?</b>          (Note: Some students may not need all of the transition services, but they will still be compliant on this aspect if the documentation indicates that the services are not needed and why.)  <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
C20	<p><b>Are the transition services aligned with the student's <u>education/training</u> goal(s)?</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No  <input type="checkbox"/> N/A; There are no transition service(s) OR no post-secondary goal(s).</p>
C21	<p><b>Are the transition services aligned with the student's <u>employment</u> goal(s)?</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No  <input type="checkbox"/> N/A; There are no transition service(s) OR no post-secondary goal(s).</p>
C22	<p><b>Are the transition services aligned with the student's <u>independent living</u> goal(s)?</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No  <input type="checkbox"/> N/A; There are no transition service(s) OR no post-secondary goal(s).</p>
P10	<p><b>Amount of special education supports:</b>  <input type="checkbox"/> Itinerant: Special education supports and services provided by special education personnel for 20% or less of the school day  <input type="checkbox"/> Supplemental: Special education supports and services provided by special education personnel for more than 20% of the day but less than 80% of the school day  <input type="checkbox"/> Full-time: Special education supports and services provided by special education personnel for 80% or more of the school day</p>
P11	<p><b>What is the percentage of time the student spends <u>INSIDE</u> the general education classroom?</b> (Note: Educational time spent in age-appropriate community-based setting that include individuals with and without disabilities, such as college campuses or vocational sites, should be counted as time spent inside the general education classroom.)  <input type="checkbox"/> 80% or More of the day  <input type="checkbox"/> 79-40% of the day  <input type="checkbox"/> Less Than 40% of the day  <input type="checkbox"/> N/A</p>

APPENDIX B  
SAMPLE LETTER REQUESTING PERMISSION FOR CONDUCTING RESEARCH

[Date]

[Insert Address]

Dear [Insert Name],

My name is Carrie Spitler. I am currently a doctoral candidate in the Special Education Ph.D. program at the University of Florida. My research interests include transition and distance education for secondary students with disabilities. I have collaborated on research in these areas with Drs. Jeanne Repetto and Cathy Cavanaugh.

I am requesting your assistance with collecting data for my dissertation study. Briefly, the study is a “document review,” meaning that the IEP documents will be the subjects of the study. Data will be collected from the IEP documents of students with disabilities between 14 and 21 years of age to determine the effects that a student’s disability category, ethnicity, and gender have on the level of conformity with the transition components of the Individuals with Disabilities Education Improvement Act of 2004, and the level of incorporation of evidence-based practices in transition planning.

Research regarding evidence of mandated transition components and best practices in IEP documents has been limited to the traditional school context. Therefore, as more and more students with disabilities are choosing cyber schools, it is important that research be extended to include this context.

I have chosen to collect data from cyber charter schools in the state of Pennsylvania for my study. I already have confirmed participation from one cyber charter school, and it was from my conversation with the CEO of that school that three other schools were recommended. After researching these schools, I have recognized [Insert School Name] as a good candidate for an additional data collection site.

Because I know you are very busy, the purpose of this letter is to give you a little information about my dissertation and how we can help each other. Some questions that you may have are addressed below:

1. What will I need from you?

I will need access to the IEP documents of students with disabilities between 14 and 21 years of age. I will work with you and/or a designated staff member to ensure that this study is conducted in a way that is minimally invasive and free of cost.

2. What about the Family Educational Rights and Privacy Act (FERPA)?

Before beginning the study, approval from the Institutional Review Board of the University of Florida will be secured. This means that the study's procedures will be in compliance with the laws and regulations governing human research.

The design of this study will ensure that the rights of students and the school are not compromised. At your discretion, I will work remotely with a staff member or travel to your office to collect IEPs that will be coded to remove all personally identifying information.

3. How will the data be used?

The purpose of the study is to describe the current state of transition planning in a cyber school context. I will collect IEPs and analyze the content using a checklist.

4. How will this study benefit your school?

Upon completion of my dissertation, I can provide you with a summary of my findings that can be used to enhance transition-planning practices at your school.

I would like to underscore that I am open to your input. I will work with you to make sure that you are comfortable with the data collection procedures, and will meet any additional requirements you may have for ensuring both school and student privacy. At your request, I will share the Methods section of my dissertation proposal with you as soon as I complete an outline of that chapter.

Thank you for your time and consideration. I would like to follow up with a phone conversation to address any questions you may have concerning this study. Please let me know an available date/time when we can speak. I look forward to hearing from you soon.

Yours most sincerely,

Carrie Spitler, M.Ed.  
Doctoral Candidate





APPENDIX E  
CODEBOOK

**Cyber Charter IEP Data Collection Instrument Codebook**

Description of Variable	SPSS Name and Label	Coding Instructions
IEP ID	D1 ID	Assigned identification number(s) and letter
IEP Date	D2 Date	mm/dd/yy
Age	D3 Age	Age in years
Grade	D4 Grade	Grade level 6-12
Primary Disability	D5Dis1 Disability 1	1=AU 2=DB 3=Deaf 4=ED 5=HI 6=MR 7=MD 8=OI 9=OHI 10=LD 11=SLI 12=TBI 13=VI
Secondary Disability	D5Dis2 Disability 2	1=AU 2=DB 3=Deaf 4=ED 5=HI 6=MR 7=MD 8=OI 9=OHI 10=LD 11=SLI 12=TBI 13=VI 14=NA
Gender	D6 Gender	1=Male 2=Female

Racial/Ethnic Background	D7 Rac/Eth Bkgd	1=American Indian/Alaskan Native 2=Asian/Pacific Islander 3=Black (Non-Hispanic) 4=Hispanic 5=White (Non-Hispanic) 6=Multicultural 7=Other  If selecting <i>Other</i> , please comment in parentheses
What is the student's projected graduation type?	P1 Graduation Type?	1=Standard Diploma 2=Recognition of Achievement
Student attended?	D8Stu Stu Attend?	1=Yes 2=No
Parent/guardian attended?	D8Par Parent Attend?	1=Yes 2=No
General ed teacher attended?	D8Gen Gen Ed Teach Attend?	1=Yes 2=No
Special ed teacher attended?	D8SPED SPED Teach Attend?	1=Yes 2=No
LEA rep attended?	D8LEA LEA Attend?	1=Yes 2=No
Career/tech ed rep attended?	D8CTE CTE Attend?	1=Yes 2=No
Community agency rep attended?	D8Com Community Agency Attend?	1=Yes 2=No
Other attended?	D8Oth Other Attend?	1=Yes 2=No
Did all of the required individuals attend and/or contribute to the meeting?	C1 All Attend?	1=Yes 2=No
Is there any indication that the parent/guardian contributed to the development of the transition components of the IEP?	P2 Parent Contribute?	1=Yes 2=No
Is there any indication that the parents have been advised that upon age of majority rights transfer to the student?	C2 Age Major Trans?	1=Yes 2=No 3=NA

Does the IEP (Present Levels) include information regarding agency involvement?	D9 Agency Contribute?	1=Yes 2=No
Does the IEP provide evidence that information on one or more community agency/service has been provided?	P3 Agency Info?	1=Yes 2=No
To the extent appropriate, did the parents or the student who has reached the age of majority consent to the invitation of a representative from an outside agency?	C3 Parents Consent to Agency Invite?	1=Yes 2=No
If agencies were NOT invited, is it too early to determine that outside agency involvement is needed?	C3A Trans Srvs by Agency Early?	1=Yes 2=No
If agencies were NOT invited, was it unlikely that an outside agency would be providing or paying for services?	C3B Trans Srvs by Agency Not Needed?	1=Yes 2=No
If agencies were NOT invited, did parents refuse to consent to inviting outside agency personnel?	C3C Trans Srvs by Agency Refused?	1=Yes 2=No
Are present levels of academic achievement and functional performance included?	C4 Present Levels?	1=Yes 2=No
Present levels of academic achievement included?	D10Aca Pres Lvls Academic Include?	1=Yes 2=No
Present levels of functional performance included?	D10Func Pres Lvls Func Included?	1=Yes 2=No
Present levels related to current postsecondary transition goals if the student's age is 14 or younger if determined appropriate by the IEP team included?	D10Trans Pres Lvls Trans PS Goals Include?	1=Yes 2=No

Parental concerns for enhancing the education of the student included?	D10Par Parent Concerns Included?	1=Yes 2=No
How the student's disability affects involvement and progress in the general education curriculum included?	D10Dis Dis Affect Gen Ed Include?	1=Yes 2=No
Strengths included?	D10Str Strengths Include?	1=Yes 2=No
Academic, developmental, and functional needs related to student's disability included?	D10Needs Needs Include?	1=Yes 2=No
If the student is age 14 or older, are transition services in place?	C5 Trans Srvs?	1=Yes 2=No
Is there evidence that the transition services were based on the student's needs, strengths, preferences, or interests?	C6 Trans Srvs Based on Needs, Etc.?	1=Yes 2=No 3=NA
Is there a post-secondary goal for education/training OR a statement that the area was addressed by the IEP team?	D11 PS Edu Goal?	1=Yes 2=No 3=NA
Is there at least one annual goal that supports the student's education/training post-secondary goal?	C7 One Annual Goal PS Edu?	1=Yes 2=No
What type of education/training goal(s) does the student have?	D12 PS Edu Goal Type?	1=On-the-job training 2=Technical program/school 3=2 or 4 year college 4=Other  If selecting <i>Other</i> , please comment in parentheses
Is the education/training goal measurable?	C8 PS Edu Goal Measure?	1=Yes 2=No
Is there evidence that the education/training goal has been based on at least one age-appropriate transition assessment?	C9 Trans Assess? PS Edu	1=Yes 2=No

Edu/Training PS: interest inventories?	D13Like Interest Invent? PS Edu	1=Yes 2=No
Edu/Training PS: formal/informal interview with student/parent?	D13Int Interview? PS Edu	1=Yes 2=No
Edu/Training PS: other eval. data?	D13Oth Other? PS Edu	1=Yes 2=No
Edu/Training PS: teacher information?	D13Teach Teacher Info? PS Edu	1=Yes 2=No
Edu/Training PS: IEP documentation?	D13IEP IEP Document? PS Edu	1=Yes 2=No
Is there a post-secondary goal for employment OR a statement that the area was addressed by the IEP team?	D14 PS Emp Goal?	1=Yes 2=No 3=NA
Is there at least one annual goal that supports the student's employment post-secondary goal?	C10 One Annual Goal PS Emp?	1=Yes 2=No
FT Emp PS goal?	D15FT FT Emp Goal?	1=Yes 2=No
PT Emp PS goal?	D15PT PT Emp Goal?	1=Yes 2=No
Comp Emp PS goal?	D15Comp Competitiv Emp Goal?	1=Yes 2=No
Supp Emp PS goal?	D15Supp Supported Emp Goal?	1=Yes 2=No
Sheltered Emp PS goal?	D15Shelt Sheltered Emp Goal?	1=Yes 2=No
Other Emp PS goal?	D15Oth Other Emp Goal?	1=Yes 2=No
Is the employment goal measurable?	C11 PS Emp Goal Measure?	1=Yes 2=No
Is there evidence that the employment goal has been based upon at least one age-appropriate transition assessment?	C12 Trans Assess? PS Emp	1=Yes 2=No
Emp PS: interest inventories?	D16Like Interest Invent? PS Emp	1=Yes 2=No
Emp PS: formal/informal interview with student/parent?	D16Int Interview? PS Emp	1=Yes 2=No
Emp PS: other eval. data?	D16Oth Other? PS Emp	1=Yes 2=No

Emp PS: teacher information?	D16Teach Teacher Info? PS Emp	1=Yes 2=No
Emp PS: IEP documentation?	D16IEP IEP Document? PS Emp	1=Yes 2=No
Career cluster?	D17 Career Cluster	1=NA; No employment goal 2=NA; Career interest not indicated 3=Agriculture, food & natural resources 4=Architecture & construction 5=Arts, AV technology, & communication 6=Business management & administration 7=Education & training 8=Finance 9=Government & public administration 10=Health science 11=Hospitality & tourism 12=Human services 13=Information technology 14=Law, public safety, corrections, & security 15=Manufacturing 16=Marketing 17=Science, technology, engineering, & math 18=Transportation, distribution, & logistics
Has the student participated in employment preparation programming OR is there any indication that the student will participate in employment preparation programming?	P4 Emp Prep Participate?	1=Yes 2=No
Participated in CTE?	D18CTE CTE?	1=Yes 2=No
Participated in CBI?	D18CBI CBI?	1=Yes 2=No
Participated in WBL?	D18WBL WBL?	1=Yes 2=No

Participated in cooperative classes?	D18Coop Coop Learn?	1=Yes 2=No
Participated in life skills classes?	D18Life Life Skills?	1=Yes 2=No
Participated in other employment preparation?	D18Oth Other Emp Prep?	1=Yes 2=No
Has the student participated in previous paid or unpaid work experience OR is there any indication that the student will participate in any paid or unpaid work experience?	P5 Work Experience?	1=Yes 2=No
Paid work experience?	D19Paid Paid Work Experience?	1=Yes 2=No
Unpaid/volunteer work experience?	D19Vol Volunteer Work Experience?	1=Yes 2=No
Not specific work experience?	D19Not Not Specific Work Experience?	1=Yes 2=No
Is there a post-secondary goal for independent living OR a statement that the area was addressed by the IEP team?	D20 PS IL Goal?	1=Yes 2=No 3=NA
Is there at least one annual goal that supports the student's independent living post-secondary goal, if appropriate?	C13 One Annual Goal PS IL?	1=Yes 2=No
Unspecific living goal?	D21Not Not Specific IL Goal?	1=Yes 2=No
Community living goal?	D21Com Community Living Goal?	1=Yes 2=No
Daily living goal?	D21Daily Daily Living Goal?	1=Yes 2=No
Self-care goal?	D21SC Self-Care Living Goal?	1=Yes 2=No
Other living goal?	D21Oth Other Living Goal?	1=Yes 2=No

Is the independent living goal measurable (i.e., occurs after graduation AND is an outcome, not a process)?	C14 PS IL Goal Measure?	1=Yes 2=No
Is there evidence that the independent living goal has been based upon at least one age-appropriate transition assessment?	C15 Trans Assess? PS IL	1=Yes 2=No
IL PS: interest inventories?	D22Like Interest Invent? PS IL	1=Yes 2=No
IL PS: formal/informal interview with student/parent?	D22Int Interview? PS IL	1=Yes 2=No
IL PS: other eval. data?	D22Oth Other? PS IL	1=Yes 2=No
IL PS: teacher information?	D22Teach Teacher Info? PS IL	1=Yes 2=No
IL PS: IEP documentation?	D22IEP IEP Document? PS IL	1=Yes 2=No
Is there evidence that transition services include courses of study that focus on improving academic and functional achievement and will reasonably enable the student to meet post-secondary goals?	C16 Courses?	1=Yes 2=No
For each targeted post-secondary goal area, is the box at the top of the grid section checked Yes to indicate that there is one or more measurable annual goal(s) related to that post-secondary goal?	C17A Trans Grid Checked Yes?	1=Yes 2=No
For each targeted postsecondary goal area, does the transition grid contain a reference to one or more measurable annual goal(s) [service(s)] addressing a skill need?	C17B Trans Grid Ref Annual Goals?	1=Yes 2=No

Are all measurable annual goals referenced as services in the Transition Grid?	C17C Trans Grid Annual Goals Ref as Srvs?	1=Yes 2=No
For each targeted postsecondary goal area, does the transition grid contain at least one activity to help a student reach that goal?	C17D Trans Grid Activities?	1=Yes 2=No
Will the student participate in a state assessment?	D23 State Assess Participate?	1=Yes 2=No; There is no state assessment administered at the student's grade level
PSSA Math	D24PSSAM PSSA Math?	1=With Accommodations 2=Without Accommodations 3=NA
PSSA Science	D24PSSAS PSSA Science?	1=With Accommodations 2=Without Accommodations 3=NA
PSSA Reading	D24PSSAR PSSA Reading?	1=With Accommodations 2=Without Accommodations 3=NA
PSSA Writing	D24PSSAW PSSA Writing?	1=With Accommodations 2=Without Accommodations 3=NA
KE Algebra 1	D24KEAlg KE Alg 1?	1=With Accommodations 2=Without Accommodations 3=NA
KE Literature	D24KELit KE Literature?	1=With Accommodations 2=Without Accommodations 3=NA
KE Biology	D24KEBio KE Biology?	1=With Accommodations 2=Without Accommodations 3=NA
PASA	D24PASA PASA?	1=Yes 3=NA

Is the state assessment supportive of general education?	P6 PSSA Supports Gen Ed?	1=Yes 2=No
Are there measurable annual IEP goals based on needs identified in present levels that will reasonably enable the student to meet post-secondary goals?	C18 Measure Annual Goals?	1=Yes 2=No
How many annual goals reasonably enable the student to meet the education/training PS goal?	D25PSEdu # Annual Goals Support PS Edu?	Please put # of annual goals in parentheses 3=NA
How many annual goals reasonably enable the student to meet the employment PS goal?	D25PSEmp # Annual Goals Support PS Emp?	Please put # of annual goals in parentheses 3=NA
How many annual goals reasonably enable the student to meet the independent living PS goal?	D25PSIL # Annual Goals Support PS IL?	Please put # of annual goals in parentheses 3=NA
Is there any indication that the student is receiving social skills training OR that the student has appropriate social skills?	P7 Stu Rec'd SS?	1=Yes 2=No
Are there transition services that address social skills?	D26 Trans Srvs SS?	1=Yes 2=No 3=NA
Are there annual goals or objectives that address social skills?	D27 Annual Goals SS?	1=Yes 2=No 3=NA
Is there any indication that the student is receiving self-determination training OR that the student has appropriate self-determination skills?	P8 Stu Rec'd SD?	1=Yes 2=No
Are there transition services that address self-determination?	D28 Trans Srvs SD?	1=Yes 2=No 3=NA

Are there annual goals or objectives that address self-determination?	D29 Annual Goals SD?	1=Yes 2=No 3=NA
Is there any indication that the student is receiving functional, daily living skills training OR that the student has appropriate functional, daily living skills?	P9 Stu Rec'd FDL?	1=Yes 2=No
Are there transition services that address functional, daily living?	D30 Trans Srvs FDL?	1=Yes 2=No 3=NA
Are there annual goals or objectives that address functional, daily living skills?	D31 Annual Goals FDL?	1=Yes 2=No 3=NA
Transition services include instruction?	D32Inst Trans Srvs Include Instruct?	1=Yes 2=No
Transition services include course of study?	D32COS Trans Srvs Include COS?	1=Yes 2=No
Transition services include related services?	D32Rel Trans Srvs Include Related Srvs?	1=Yes 2=No
Transition services include community experiences?	D32Com Trans Srvs Include Comm Exp?	1=Yes 2=No
Transition services include development of employment and other post-school adult living objectives?	D32PSEmp Trans Srvs Include PS Emp?	1=Yes 2=No
Transition services include acquisition of daily living skills?	D32ADL Trans Srvs Include Acquire FDL?	1=Yes 2=No
Transition services include provision of a functional vocational evaluation?	D32Eval Trans Srvs Include Func Eval?	1=Yes 2=No

Are 100% of the required transition services (i.e., instruction, course of study, related services, community experience, employment and adult living objectives) addressed?	C19 100% Trans Srvs?	1=Yes 2=No
Are the transition services aligned with the student's education/training goal(s)?	C20 Trans Srvs Align w PS Edu Goal?	1=Yes 2=No 3=NA
Are the transition services aligned with the student's employment goal(s)?	C21 Trans Srvs Align w PS Emp Goal?	1=Yes 2=No 3=NA
Are the transition services aligned with the student's independent living goal(s)?	C22 Trans Srvs Align w PS IL Goal?	1=Yes 2=No 3=NA
Special education supports?	P10 SPED Supports?	1=Itinerant 2=Supplemental 3=Full-time
What is the percentage of time the student spends INSIDE the general education classroom?	P11 Time In Gen Ed Class?	1=80% or More 2=79-40% 3=Less than 40% 4=NA

APPENDIX F  
NON-STATISTICALLY SIGNIFICANT LOGISTIC REGRESSION TABLES

Table F-1. Multiple logistic regression results for evidence that the required individuals attended and/or contributed to the IEP meeting.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )
C1	Block 1				
	School type	-1.415 (.509)	7.717 (1)	.005	.243
	Grade level	-.084 (.169)	.246 (1)	.620	.920
	Gender	-.528 (.533)	.982 (1)	.322	.590
	Constant	-.193 (1.636)	.014 (1)	.906	.824
	Block 2				
	School type	-1.549 (.573)	7.297 (1)	.007	.212
	Grade level	-.140 (.176)	.629 (1)	.428	.870
	Gender	-.231 (.571)	.164 (1)	.685	.793
	AU	.650 (1.220)	.284 (1)	.594	1.915
	ED	.020 (.350)	.003 (1)	.954	1.021
	OHI	-2.042 (731.353)	.000 (1)	.998	.130
	SLD	.031 (.118)	.071 (1)	.790	1.032
	Black (Non-Hispanic)	-.387 (.409)	.894 (1)	.344	.679
	Hispanic	-4.901 (2606.069)	.000 (1)	.998	.007
	White (Non-Hispanic)	-.296 (.200)	2.202 (1)	.138	.744
	Constant	1.230 (2.156)	.325 (1)	.568	3.420

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .080 (Cox & Snell); .193 (Nagelkerke). Model  $\chi^2$  (4) = 19.769,  $p < .05$ .

Table F-2. Multiple logistic regression results for evidence that representatives of agencies/services were invited to the IEP meeting.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )
C3	Block 1				
	School type	-17.020 (3601.049)	.000 (1)	.996	.000
	Grade level	-1.675 (1.492)	1.259 (1)	.262	.187
	Gender	-16.249 (2970.259)	.000 (1)	.996	.000
	Constant	71.033 (6946.770)	.000 (1)	.992	706630996892 392400000000 0000000.000
	Block 2				
	School type	-30.702 (2929.909)	.000 (1)	.992	.000
	Grade level	-14.852 (965.841)	.000 (1)	.988	.000
	Gender	-1.895 (3090.284)	.000 (1)	1.000	.150
	AU	-1.375 (9725.220)	.000 (1)	1.000	.253
	ED	-.311 (2309.509)	.000 (1)	1.000	.733
	OHI	-2.127 (734.098)	.000 (1)	.998	.119
	SLD	1.109 (700.687)	.000 (1)	.999	3.031
	Black (Non-Hispanic)	.145 (4508.001)	.000 (1)	1.000	1.156
	Hispanic	1.073 (3815.553)	.000 (1)	1.000	2.923
	White (Non-Hispanic)	.215 (2572.582)	.000 (1)	1.000	1.240
	Constant	215.930 (18500.213)	.000 (1)	.991	5.989E+093

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .042 (Cox & Snell); .790 (Nagelkerke). Model  $\chi^2$  (4) = 10.151,  $p < .05$ .

Table F-3. Multiple logistic regression results for evidence that transition services were in place for students 14 years of age or older.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )
C5	Block 1				
	School type	16.487 (4286.673)	.000 (1)	.997	14467671.862
	Grade level	-.027 (.521)	.003 (1)	.958	.973
	Gender	17.058 (3394.223)	.000 (1)	.996	25600889.150
	Constant	-54.007 (8026.611)	.000 (1)	.995	.000
	Block 2				
	School type	16.607 (3989.691)	.000 (1)	.997	16310699.765
	Grade level	-.118 (.509)	.053 (1)	.817	.889
	Gender	16.642 (3006.476)	.000 (1)	.996	16891590.494
	AU	1.428 (8896.638)	.000 (1)	1.000	4.169
	ED	.275 (2400.851)	.000 (1)	1.000	1.317
	OHI	.003 (1046.914)	.000 (1)	1.000	1.003
	SLD	1.724 (713.936)	.000 (1)	.998	5.609
	Black (Non-Hispanic)	.097 (4534.198)	.000 (1)	1.000	1.102
	Hispanic	-.068 (3700.791)	.000 (1)	1.000	.934
	White (Non-Hispanic)	3.206 (2302.828)	.000 (1)	.999	24.686
	Constant	-84.896 (15349.889)	.000 (1)	.996	.000

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .032 (Cox & Snell); .349 (Nagelkerke). Model  $\chi^2$  (4) = 7.787,  $p < .05$ .

Table F-4. Multiple logistic regression results for evidence that the transition services were based on the student's needs, strengths, preferences, or interests.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )
C6	Block 1				
	School type	-.067 (.868)	.006 (1)	.938	.935
	Grade level	-.508 (.309)	2.708 (1)	.100	.602
	Gender	.547 (.796)	.472 (1)	.492	1.728
	Constant	.168 (2.813)	.004 (1)	.952	1.184
	Block 2				
	School type	.297 (.895)	.110 (1)	.740	1.346
	Grade level	-.489 (.335)	2.129 (1)	.145	.613
	Gender	.349 (.848)	.169 (1)	.681	1.417
	AU	.035 (9788.753)	.000 (1)	1.000	1.036
	ED	4.656 (1880.180)	.000 (1)	.998	105.198
	OHI	2.053 (835.636)	.000 (1)	.998	7.790
	SLD	1.693 (752.072)	.000 (1)	.998	5.438
	Black (Non-Hispanic)	-.211 (5207.331)	.000 (1)	1.000	.810
	Hispanic	4.065 (3228.905)	.000 (1)	.999	58.268
	White (Non-Hispanic)	3.245 (2583.124)	.000 (1)	.999	25.659
	Constant	-33.564 (14945.717)	.000 (1)	.998	.000

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .052 (Cox & Snell); .220 (Nagelkerke). Model  $\chi^2$  (4) = 50.474,  $p < .05$ .

Table F-5. Multiple logistic regression results for evidence of at least one annual goal that supports the student's education/training post-secondary goal.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )
C7	Block 1				
	School type	.937 (.474)	3.913 (1)	.048	2.552
	Grade level	.045 (.128)	.126 (1)	.722	1.046
	Gender	-.367 (.374)	.960 (1)	.327	.693
	Constant	-2.293 (1.371)	2.795 (1)	.095	.101
	Block 2				
	School type	.996 (.506)	3.873 (1)	.049	2.707
	Grade level	.051 (.132)	.148 (1)	.700	1.052
	Gender	-.385 (.403)	.915 (1)	.339	.680
	AU	-.555 (.676)	.674 (1)	.412	.574
	ED	.150 (.175)	.740 (1)	.390	1.162
	OHI	-.033 (.083)	.157 (1)	.692	.968
	SLD	-.059 (.058)	1.034 (1)	.309	.943
	Black (Non-Hispanic)	-.453 (.394)	1.317 (1)	.251	.636
	Hispanic	-.209 (.311)	.453 (1)	.501	.811
	White (Non-Hispanic)	-.162 (.182)	.790 (1)	.374	.851
	Constant	-1.243 (1.674)	.551 (1)	.458	.289

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .049 (Cox & Snell); .085 (Nagelkerke). Model  $\chi^2$  (4) = 11.612,  $p < .05$ .

Table F-6. Multiple logistic regression results for evidence that the education/training goal was measurable.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )	
C8	Block 1					
		School type	.577 (.320)	3.240 (1)	.072	1.780
		Grade level	.058 (.105)	.303 (1)	.582	1.060
		Gender	.275 (.313)	.775 (1)	.379	1.317
		Constant	-.196 (1.076)	.033 (1)	.856	.822
		Block 2				
		School type	.521 (.341)	2.332 (1)	.127	1.684
		Grade level	.066 (.109)	.372 (1)	.542	1.068
		Gender	.266 (.332)	.644 (1)	.422	1.305
		AU	.085 (.664)	.016 (1)	.898	1.089
		ED	-.015 (.183)	.006 (1)	.936	.986
		OHI	-.040 (.077)	.275 (1)	.600	.961
		SLD	-.017 (.058)	.089 (1)	.766	.983
		Black (Non-Hispanic)	-.131 (.331)	.156 (1)	.693	.878
		Hispanic	.382 (.346)	1.215 (1)	.270	1.465
		White (Non-Hispanic)	.057 (.177)	.103 (1)	.749	1.058
		Constant	-.351 (1.434)	.060 (1)	.807	.704

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .035 (Cox & Snell); .053 (Nagelkerke). Model  $\chi^2$  (4) = 8.334,  $p < .05$ .

Table F-7. Multiple logistic regression results for evidence that there was at least one annual goal that supported the student's employment post-secondary goal.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )
C10	Block 1				
	School type	.079 (.335)	.056 (1)	.813	1.083
	Grade level	.128 (.107)	1.444 (1)	.230	1.137
	Gender	.039 (.308)	.016 (1)	.899	1.040
	Constant	-2.399 (1.123)	4.565 (1)	.033	.091
	Block 2				
	School type	-.015 (.358)	.002 (1)	.967	.985
	Grade level	.140 (.110)	1.613 (1)	.204	1.150
	Gender	-.005 (.331)	.000 (1)	.989	.995
	AU	-.766 (.602)	1.621 (1)	.203	.465
	ED	-.004 (.157)	.001 (1)	.980	.996
	OHI	-.054 (.069)	.612 (1)	.434	.947
	SLD	-.084 (.051)	2.696 (1)	.101	.920
	Black (Non-Hispanic)	-.139 (.347)	.162 (1)	.688	.870
	Hispanic	.042 (.274)	.024 (1)	.878	1.043
	White (Non-Hispanic)	-.044 (.178)	.060 (1)	.806	.957
Constant	-1.601 (1.438)	1.240 (1)	.266	.202	

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .031 (Cox & Snell); .046 (Nagelkerke). Model  $\chi^2$  (4) = 7.178,  $p < .05$ .

Table F-8. Multiple logistic regression results for evidence that the employment goal was measurable.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )	
C11	Block 1					
		School type	.635 (.498)	1.623 (1)	.203	1.887
		Grade level	-.034 (.168)	.042 (1)	.837	.966
		Gender	.073 (.499)	.022 (1)	.883	1.076
		Constant	2.264 (1.705)	1.763 (1)	.184	9.625
		Block 2				
		School type	.619 (.543)	1.300 (1)	.254	1.857
		Grade level	-.012 (.176)	.005 (1)	.946	.988
		Gender	.132 (.534)	.061 (1)	.806	1.141
		AU	.636 (1.065)	.356 (1)	.551	1.888
		ED	-.032 (.257)	.016 (1)	.900	.968
		OHI	-.037 (.108)	.118 (1)	.732	.964
		SLD	.066 (.089)	.557 (1)	.455	1.069
		Black (Non-Hispanic)	-6.330 (5031.783)	.000 (1)	.999	.002
		Hispanic	.086 (4737.106)	.000 (1)	1.000	1.090
		White (Non-Hispanic)	-3.735 (3019.070)	.000 (1)	.999	.024
	Constant	20.272 (15095.349)	.000 (1)	.999	636997177.071	

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .034 (Cox & Snell); .079 (Nagelkerke). Model  $\chi^2$  (4) = 7.800,  $p < .05$ .

Table F-9. Multiple logistic regression results for evidence that there was at least one annual goal that supported the student's independent living post-secondary goal.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )
C13	Block 1				
	School type	.908 (.558)	2.652 (1)	.103	2.480
	Grade level	-.259 (.137)	3.550 (1)	.060	.772
	Gender	.486 (.390)	1.557 (1)	.212	1.626
	Constant	2.001 (1.578)	1.607 (1)	.205	7.395
	Block 2				
	School type	1.289 (.599)	4.630 (1)	.031	3.629
	Grade level	-.267 (.142)	3.532 (1)	.060	.766
	Gender	.508 (.442)	1.325 (1)	.250	1.663
	AU	.587 (.643)	.834 (1)	.361	1.798
	ED	.419 (.215)	3.788 (1)	.052	1.520
	OHI	.162 (.090)	3.219 (1)	.073	1.176
	SLD	.111 (.056)	3.904 (1)	.048	1.118
	Black (Non-Hispanic)	-.138 (.481)	.082 (1)	.774	.871
	Hispanic	-.424 (.381)	1.238 (1)	.266	.655
	White (Non-Hispanic)	-.281 (.246)	1.310 (1)	.252	.755
	Constant	2.113 (2.027)	1.087 (1)	.297	8.274

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .111 (Cox & Snell); .163 (Nagelkerke). Model  $\chi^2$  (4) = 18.298,  $p < .05$ .

Table F-10. Multiple logistic regression results for evidence that the transition services included courses of study.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )
C16	Block 1				
	School type	.240 (.372)	.419 (1)	.518	1.272
	Grade level	-.005 (.113)	.002 (1)	.962	.995
	Gender	.053 (.330)	.026 (1)	.872	1.054
	Constant	-1.618 (1.186)	1.862 (1)	.172	.198
	Block 2				
	School type	.363 (.399)	.826 (1)	.363	1.438
	Grade level	.032 (.122)	.070 (1)	.792	1.033
	Gender	.093 (.374)	.062 (1)	.804	1.097
	AU	.810 (.786)	1.062 (1)	.303	2.248
	ED	.391 (.200)	3.799 (1)	.051	1.478
	OHI	.126 (.086)	2.129 (1)	.145	1.134
	SLD	.053 (.070)	.568 (1)	.451	1.054
	Black (Non-Hispanic)	.325 (.406)	.643 (1)	.423	1.385
	Hispanic	.429 (.322)	1.776 (1)	.183	1.536
	White (Non-Hispanic)	-.022 (.226)	.010 (1)	.921	.978
	Constant	-2.995 (1.741)	2.962 (1)	.085	.050

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .077 (Cox & Snell); .122 (Nagelkerke). Model  $\chi^2$  (4) = 18.845,  $p < .05$ .

Table F-11. Multiple logistic regression results for evidence that the transition grid contained a reference to one or more measurable annual goal/service addressing a skill need.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )
C17B	Block 1				
	School type	2.030 (.318)	40.768 (1)	.000	7.614
	Grade level	-.042 (.105)	.160 (1)	.689	.959
	Gender	-.047 (.311)	.023 (1)	.879	.954
	Constant	-.150 (1.072)	.020 (1)	.889	.861
	Block 2				
	School type	2.229 (.353)	39.839 (1)	.000	9.295
	Grade level	-.035 (.108)	.015 (1)	.746	.965
	Gender	-.014 (.334)	.002 (1)	.968	.987
	AU	.099 (.632)	.024 (1)	.876	1.104
	ED	.287 (.184)	2.430 (1)	.119	1.332
	OHI	.079 (.075)	1.128 (1)	.288	1.082
	SLD	.032 (.055)	.339 (1)	.560	1.032
	Black (Non-Hispanic)	-.460 (.437)	1.112 (1)	.292	.631
	Hispanic	-.479 (.352)	1.848 (1)	.174	.619
	White (Non-Hispanic)	-.312 (.240)	1.692 (1)	.193	.732
	Constant	.749 (1.642)	.208 (1)	.649	2.114

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .193 (Cox & Snell); .268 (Nagelkerke). Model  $\chi^2$  (4) = 50.604,  $p < .05$ .

Table F-12. Multiple logistic regression results for evidence the transition grid contained at least one activity to help a student reach each targeted goal.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )
C17D	Block 1				
	School type	-.521 (.393)	1.752 (1)	.186	.594
	Grade level	.083 (.130)	.411 (1)	.522	1.087
	Gender	-.282 (.389)	.526 (1)	.468	.754
	Constant	-1.875 (1.338)	1.964 (1)	.161	.153
	Block 2				
	School type	-.378 (.420)	.812 (1)	.368	.685
	Grade level	.142 (.140)	1.023 (1)	.312	1.153
	Gender	-.230 (.442)	.269 (1)	.604	.795
	AU	19.498 (7846.005)	.000 (1)	.998	293804942.167
	ED	4.904 (1961.501)	.000 (1)	.998	134.845
	OHI	2.186 (871.778)	.000 (1)	.998	8.903
	SLD	1.933 (784.600)	.000 (1)	.998	6.910
	Black (Non-Hispanic)	-.219 (.377)	.339 (1)	.561	.803
	Hispanic	.096 (.299)	.103 (1)	.748	1.101
	White (Non-Hispanic)	-.315 (.199)	2.498 (1)	.114	.730
	Constant	-20.565 (7846.005)	.000 (1)	.998	.000

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .085 (Cox & Snell); .156 (Nagelkerke). Model  $\chi^2$  (4) = 21.072,  $p < .05$ .

Table F-13. Multiple logistic regression results for evidence that the transition services aligned with the student's education/training goal.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )
C20	Block 1				
	School type	17.651 (4211.344)	.000 (1)	.997	46321780.148
	Grade level	-.994 (.546)	3.317 (1)	.069	.370
	Gender	-1.103 (1.183)	.870 (1)	.351	.332
	Constant	-11.448 (4211.346)	.000 (1)	.998	.000
	Block 2				
	School type	18.390 (3787.027)	.000 (1)	.996	97019522.016
	Grade level	-1.089 (.673)	2.618 (1)	.106	.336
	Gender	-1.444 (1.314)	1.207 (1)	.272	.236
	AU	-.722 (9194.206)	.000 (1)	1.000	.462
	ED	4.608 (1787.191)	.000 (1)	.998	100.240
	OHI	1.963 (794.307)	.000 (1)	.998	7.120
	SLD	1.600 (714.877)	.000 (1)	.998	4.952
	Black (Non-Hispanic)	-.480 (4838.272)	.000 (1)	1.000	.619
	Hispanic	3.684 (3038.422)	.000 (1)	.999	39.796
	White (Non-Hispanic)	2.795 (2430.738)	.000 (1)	.999	16.360
	Constant	-41.597 (14599.953)	.000 (1)	.998	.000

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .075 (Cox & Snell); .460 (Nagelkerke). Model  $\chi^2$  (4) = 17.638,  $p < .05$ .

Table F-14. Multiple logistic regression results for evidence that the transition services aligned with the student's employment goal.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )
C21	Block 1				
	School type	17.240 (4293.945)	.000 (1)	.997	30701142.707
	Grade level	-.814 (.640)	1.617 (1)	.204	.433
	Gender	-17.089 (3699.276)	.000 (1)	.996	.000
	Constant	3.271 (5667.683)	.000 (1)	1.000	26.345
	Block 2				
	School type	16.226 (3803.548)	.000 (1)	.997	11133885.609
	Grade level	-1.267 (.933)	1.843 (1)	.175	.282
	Gender	-17.690 (3227.556)	.000 (1)	.996	.000
	AU	-19.430 (5661.982)	.000 (1)	.997	.000
	ED	-4.357 (1679.133)	.000 (1)	.998	.013
	OHI	-2.039 (635.656)	.000 (1)	.997	.130
	SLD	-.261 (.183)	2.027 (1)	.155	.771
	Black (Non-Hispanic)	-.479 (4587.650)	.000 (1)	1.000	.620
	Hispanic	4.003 (4276.616)	.000 (1)	.999	54.744
	White (Non-Hispanic)	3.397 (2384.434)	.000 (1)	.999	29.878
	Constant	-5.902 (12911.758)	.000 (1)	1.000	.003

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .050 (Cox & Snell); .492 (Nagelkerke). Model  $\chi^2$  (4) = 10.808,  $p < .05$ .

Table F-15. Multiple logistic regression results for evidence that the transition services aligned with the student's independent living goal.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )
C22	Block 1				
	School type	-46.973 (3535.460)	.000 (1)	.989	.000
	Grade level	-14.806 (1160.618)	.000 (1)	.990	.000
	Gender	45.403 (3729.983)	.000 (1)	.990	522691019622 81050000.000
	Constant	42.467 (7951.540)	.000 (1)	.996	277368120515 8747600.000
	Block 2				
	School type	-47.602 (4851.766)	.000 (1)	.992	.000
	Grade level	-14.945 (1243.875)	.000 (1)	.990	.000
	Gender	45.755 (3963.040)	.000 (1)	.991	743162138898 08560000.000
	AU	1.484 (10378.361)	.000 (1)	1.000	4.412
	ED	3.910 (2944.357)	.000 (1)	.999	49.901
	OHI	1.640 (1360.253)	.000 (1)	.999	5.155
	SLD	.079 (956.301)	.000 (1)	1.000	1.082
	Black (Non-Hispanic)	9.657 (5389.564)	.000 (1)	.999	15630.287
	Hispanic	3.624 (4820.723)	.000 (1)	.999	37.474
	White (Non-Hispanic)	.057 (3015.509)	.000 (1)	1.000	1.059
	Constant	41.922 (15200.088)	.000 (1)	.998	160844148176 1326590.000

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .082 (Cox & Snell); 1.000 (Nagelkerke). Model  $\chi^2$  (4) = 11.862,  $p < .05$ .

Table F-16. Multiple logistic regression results for evidence of student participation in an employment preparation program.

DV	IV	$\beta$ (SE)	Wald (df)	$p$	Exp ( $\beta$ )
P4	Block 1				
	School type	-1.875 (.458)	16.751 (1)	.000	.153
	Grade level	.224 (.150)	2.223 (1)	.136	1.251
	Gender	.339 (.446)	.576 (1)	.448	1.403
	Constant	-3.704 (1.535)	5.825 (1)	.016	.025
	Block 2				
	School type	-1.930 (.506)	14.533 (1)	.000	.145
	Grade level	.191 (.157)	1.479 (1)	.224	1.210
	Gender	.352 (.477)	.547 (1)	.460	1.422
	AU	.669 (1.200)	.311 (1)	.577	1.952
	ED	.084 (.315)	.071 (1)	.789	1.088
	OHI	.029 (.137)	.044 (1)	.835	1.029
	SLD	.002 (.133)	.000 (1)	.983	1.002
	Black (Non-Hispanic)	6.134 (4708.987)	.000 (1)	.999	461.464
	Hispanic	.087 (4494.656)	.000 (1)	1.000	1.090
	White (Non-Hispanic)	3.860 (2825.392)	.000 (1)	.999	47.473
	Constant	-22.733 (14126.960)	.000 (1)	.999	.000

Note: DV = dependant variable; IV = independent variable; AU = Autism; ED = Emotional disturbance; OHI = Other health impairment; SLD = Specific learning disability; .113 (Cox & Snell); .226 (Nagelkerke). Model  $\chi^2$  (4) = 28.259,  $p < .05$ .

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## BIOGRAPHICAL SKETCH

Carrie J. Spitler was born in Plano, Texas. Although she spent her childhood moving every few years, she has always considered Texas her home. As a young woman, Carrie excelled in school while pursuing her interests in art, music, and basketball. From an early age, she often spent time with individuals with disabilities. She has been a lifelong volunteer at a variety of Special Olympics sporting events, as well as a volunteer during high school and college at a summer camp for students with disabilities, and at a residential and vocational center for adults with disabilities.

Carrie graduated from St. Agnes Academy in Houston, Texas in 2000. She attended Villanova University in Villanova, Pennsylvania and graduated in 2004, earning her B.A. in economics, along with minors in business and women's studies. Upon returning home, Carrie accepted her first teaching position at The Briarwood School in Houston, Texas. Here she spent three years working with students with intellectual disabilities, ages twelve through twenty-two, in a workroom on campus and as a job coach at three off-campus work-based learning settings where students were able to participate in job training. Carrie spent her evenings and summers at St. Thomas University in Houston, Texas pursuing her certification as a special education teacher, while simultaneously working toward her master's degree in special education, and a post-master's certification as an educational diagnostician.

In 2009, Carrie moved to Gainesville, Florida to pursue her doctorate full-time. She spent her first year working as a research assistant for the National Center to Inform Policy and Practice in Special Education Professional Development. The purpose of the center was to disseminate practices to increase the retention and quality of beginning special education teachers. In her second year, she was accepted as a

graduate assistant on Project PRAIS, a leadership grant aimed at preparing researchers in assistive technology application in inclusive general education contexts for students with significant disabilities.

Carrie's doctoral level studies have focused on post-secondary transition, online education, and students with significant disabilities. She also completed extensive coursework in quantitative research methods. In addition to coursework, Carrie served as a teaching assistant or instructor in both undergraduate and graduate level courses on the development of effective education services for students with significant disabilities.