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# The Effects of the Michigan Transition Outcomes Project

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# THE EFFECTS OF THE MICHIGAN TRANSITION OUTCOMES PROJECT

by

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Jane E. Finn

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# CHAPTER 1

## INTRODUCTION

Disabilities are part of the human condition. At times, society has hidden, shunned, and persecuted individuals with exceptionalities; at other times, they have been revered for their special powers in certain cultures. Gradually, a more balanced view has occurred, leading to protection and equal treatment under the law. Similarly, over the years, attention to the rights of persons with disabilities has grown, and within the area of education, the focus has shifted to individualized instruction designed to meet their unique educational needs.

For over 25 years, the United States government has supported special education and related services programming for students with exceptionalities. One of the most notable laws, the Rehabilitation Act Amendments of 1973 (PL 93-112), prohibited discrimination against Americans with disabilities in programs and activities that received federal financial assistance. Another landmark law, The Education for All Handicapped Children's Act (PL 94-142), was passed in 1975 to guarantee special education and related services to children and youth with disabilities. According to this legislation, these students are entitled to a free, appropriate public education (FAPE) in the least restrictive environment. This law also provided guidelines and regulations for academic and vocational preparation for students with special needs (National Information Center for Children and Youth with Disabilities, 1995). In 1990, The Education for All Handicapped Children's Act was revised and renamed the Individuals with Disabilities

Education Act (IDEA). IDEA expanded upon PL 94-142, adding the requirements of transition planning as well as increased focus on students with minority backgrounds. Further, revision of IDEA in 1997 restructured IDEA from seven to four parts: Part A addresses general provisions, definitions, purposes and funding; Part B provides guidelines for assistance for education of all children with disabilities ages 3-21; Part C covers infants and toddlers with disabilities; and Part D discusses national activities to improve the education of children with disabilities (IDEA, 1997; Yell & Shriner, 1997).

In November of 2004, Congress passed legislation to reauthorize the Individuals with Disabilities Education Act, and in December of 2004 this revision was signed into law (Council for Exceptional Children, 2004b; National Center on Secondary Education and Transition, 2004). These latest reauthorizations focus on strengthening accountability and results for students, reducing the paperwork burden for teachers, providing greater flexibility for local school districts to improve early intervention, reducing the number of children who are incorrectly placed in special education classes, reducing litigation, and aligning IDEA with the bipartisan No Child Left Behind Act (Council for Exceptional Children, 2004a). At this writing, federal regulations have not yet been promulgated and states are required to continue using IDEA 1997.

When looking at its history, IDEA has changed its focus from ensuring access to improving the academic performance and post-school results of students with disabilities (Hasazi, Furney, & DeStefano, 1999; Office of Special Education Programs, 2000; Storms, O'Leary, & Williams, 2000). Despite evidence showing that IDEA has had a positive and strong impact on students with disabilities, recent studies indicate that a great number of people with disabilities are not achieving post-school success (Blackorby

& Wagner, 1996; Colley & Jamison, 1998; Dunn, 1996; Love & Malian, 1997; Taylor, 2000a, 2000b). Specifically, students with exceptionalities often lack the necessary skills related to succeed at employment, independent living, and community involvement (Blackorby & Wagner, 1996; Colley & Jamison, 1998; Dunn, 1996; Love & Malian, 1997; Wagner, Blackorby, Cameto, Hebbeler, & Newman, 1993). Compared to their nondisabled peers, students with disabilities also demonstrate higher rates of dropping out of school, higher arrest rates, and higher percentages of out of wedlock parenting compared to their nondisabled peers (Benz, Lindstrom, & Yovanoff, 2000; Blackorby & Wagner, 1996; Kortering & Braziel, 1999; Sinclair, Christenson, Evelo, & Hurley, 1998).

## IDEA and Transition

Post-school success is greatly influenced by several school factors, including general education placement, vocational education, work experience, parent involvement, and interagency collaboration (Benz et al., 2000; Hasazi et al., 1999; Karge, Patton, & de la Garza, 1992; Kohler, 1993; Kohler & Hood, 2000; Lehmann, Cobb, & Tochterman, 2001; Sitlington, Frank, & Carson, 1993; Wagner, D'Amico, Marder, Newman, & Blackorby, 1991). A well-executed transition plan could address all of these elements, and thus improve post-school outcomes for students with disabilities (Colley & Jamison, 1998; Dunn, 1996; National Council on Disabilities, 2000b; Reguera, 1995).

Transition plans are defined as documents for students with disabilities that describe strategies for assisting them as they prepare to leave school for adult life (Friend & Bursuck, 2002; Lewis & Doorlag, 2002; Miller, 2002). IDEA 1997 outlines the content of the individualized education program (IEP) regarding transition planning as follows:

> (b) (1) for each student with a disability beginning at age 14 (or younger, if determined appropriate by the IEP team), and updated annually, a statement of the transition service needs of the student under the applicable components of the student's IEP that focuses on the student's courses of study (such as participation in advanced-placement courses or a vocational education program); and (2) for each student beginning at age 16 (or younger, if determined appropriate by the IEP team) a statement of needed transition services for the student, including, if appropriate, a statement of each public agency's and each participating agency's responsibilities or linkages, or both, before the student leaves the school setting. (34 CFR § 300.347)

Transition services are an important provision in IDEA. In order to give school districts, educators, students, and parents an understanding of these mandated services, IDEA 1990 defined transition services as:

> (a) a coordinated set of activities for a student with a disability that (1) is designed within an outcome-oriented process, that promotes movement from school to post-school activities, including post-secondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation. The coordinated set of activities ... must (2) be based upon the individual student's needs, taking into account the student's preferences and interests; and (3) includes (i) instruction; (ii) related services; (iii) community experiences; (iv) the development of employment and other post-school adult living objectives; and (v) if appropriate, acquisition of daily living skills and functional vocational evaluation. (PL 98-199, Section 300.29)

One of the best strategies for improving post-school outcomes for students with disabilities is to give students tools to help them in their future, including opportunities to become involved in community services and taking advantage of school-to-work opportunities (National Council on Disabilities, 2000b). Transition services areas in each student's IEP must address instruction, community experience, and other post-school adult living objectives (Dunn, 1996). When comparing students with disabilities who have transition plans to students who do not, the former more frequently attain a high school diploma and further their education by attending college or successfully entering the workforce (Colley & Jamison, 1998; Reguera, 1995).

Appropriately written and planned transition plans also benefit the school district in several ways. First, school personnel are assured that they are helping students reach postsecondary goals. Second, if school districts do not satisfy the transition requirements as outlined in IDEA, federal monies may be denied (LaMore, 2002).

Despite the research on best practices and IDEA mandates, educators report problems in implementing appropriate transition plans. Perceived problems include difficulty comprehending the federal law, lack of training to implement the legislation, and shortages of appropriate transition plan models. As a result, the vast majority of states are out of compliance, according to monitoring reports by the Office of Special Education Programs (see www.ed.gov/offices/OSERS?OSEP/Monitoring/).

## Transition Outcomes Project

To help schools become compliant with IDEA, and ultimately ensure better post-school results for students with disabilities, the Transition Outcomes Project was initiated. The purpose of this project is to assist school districts in meeting the transition services requirements of IDEA 1997, evaluate the effectiveness of delivering transition services through the IEP, provide resources and training for school personnel, and improve graduation rates and post-school outcomes for students with disabilities (O'Leary, 2000a, 2003).

The Transition Outcomes Project approach involves five steps: (1) train about the model; (2) review of the IEPs of transition-age students using the *Transition Requirements Checklist* to identify problem areas with compliance with the transition requirements of IDEA 1997; (3) identify appropriate strategies and interventions, and develop

action plans with target goals to address these problem areas; (4) implement the strategies and interventions; and (5) evaluate the transition IEPs of the same students with disabilities over time using the *Transition Requirements Checklist* and report on the resulting changes, improvements, and strategies (Fahle, Myron, & Winans, 2002; O'Leary, 2000b, 2001a). Participating school districts and state education agency personnel are involved throughout this process.

Other empirical studies have located the presence of required transition components in students' IEPs that have used different instruments. These include Lawson and Everson's (1994) national study of transition IEPs for students who were deaf-blind; deFur, Getzel, and Kregel's (1994) evaluation of students' IEP plans in the state of Virginia; Grigal, Test, Beattie, and Wood's (1997) evaluation of transition components of students with various disabilities; McMahan and Baer's (2001) survey of persons involved in transition planning; and Everson, Zhang, and Guillory's (2002) statewide investigation of students' transition plans in Louisiana.

The Transition Outcomes Project discussed here is different from these studies because it uses the results of baseline data collected by a district to identify problem areas with regard to compliance. Each district then develops a plan for improving the identified areas in the students' IEPs and implements this plan through strategies and interventions selected by district personnel. In other words, the Transition Outcomes Project is developed around a model that is both controlled by and voluntary on the part of the local school district. The goal of the process is to improve the transition IEPs of students with disabilities and identify strategies that lead to better written and executed transition plans (Fahle et al., 2002; O'Leary, 2000a, 2001d).

The Transition Outcomes Project has become a popular model. At the time of this study, it has been or is currently being used in 21 states, including Wyoming, Montana, Iowa, Utah, New Mexico, Kansas, Maryland, Nebraska, and Wisconsin (O'Leary, 2001a, 2001b).

Despite its widespread use, however, to date no structured study has been conducted to determine whether the Transition Outcomes Project has been effective in improving the transition components of IEPs for students with disabilities as required by IDEA 1997.

## Statement of the Problem

Individuals with disabilities continue to have poor post-school outcomes compared to nondisabled peers despite the IDEA mandate for transition planning. Many states are out of compliance with the transition requirements because they fail to implement the minimal guidelines for effective practices in transition planning. Little information is available on approaches and models designed to improve compliance with IDEA transition requirements and ensure implementation of effective practices.

A process called the Transition Outcomes Project purports to assist school personnel in developing transition IEPs for students with disabilities that meet federal mandates and ultimately improve student outcomes. However, to date, no formal empirical studies have been published regarding the effectiveness of this model.

The purpose of this study was to investigate the effectiveness of the Michigan Transition Outcomes Project to determine whether use of this model improved compliance with the transition components of IDEA 1997, as well as to examine the perceptions

of school personnel who have implemented the model regarding how this model affected the transition planning process for students with disabilities. The study used qualitative and quantitative measures to examine the effectiveness of the model.

## Research Questions

Part 1 of the study used quantitative measures to investigate the following questions:

1-1. What effects did the Michigan Transition Outcomes Project have on compliance with the IDEA 1997 transition-related IEP requirements?

1-2. Do these effects vary by students' disability categories?

1-3. Do these effects vary by region in which the model was implemented?

1-4. Do these effects vary by content area of the IEP items?

Part 2 of the study used qualitative measures to investigate how implementation of the Michigan Transition Outcomes Project affected the transition planning process for students with disabilities. Specifically, the following questions were posed:

2-1. What effects did participation in the Michigan Transition Outcomes Project have on the transition planning process in the participating regions?

2-2. What results were achieved in the regions participating in the Michigan Transition Outcomes Project?

2-3. Did the participating regions implement researched-based practices as a result of their participation?

2-4. What were the strengths and limitations of the Michigan Transition Outcomes Project?

# CHAPTER 2

# LITERATURE REVIEW

## Introduction

The Education for All Handicapped Children Act (PL 94-142) passed in 1975 brought new educational promise to children and youth with disabilities. Specifically, students with all types of disabilities were able to gain free access to programs and special services in the public schools. In 1990, PL 94-142 was amended and renamed the Individuals with Disabilities Education Act (IDEA). Congress acknowledged that the previous law had been successful in improving access to public schools for children with disabilities, but that more needed to be done to improve the educational achievement of these students in both the special and the general education curricula and to improve their post-school outcomes (Senate Report of the Individuals with Disabilities Act Amendments, 1997). Concerns regarding improving the post-school performance of students with disabilities were based on the results of studies, mandated by the U.S. Congress, to determine whether IDEA had been effective for students with disabilities who had graduated from the secondary school system (National Council on Disability, 2000a; U.S. Department of Education, 2000; Yell, Rogers, & Rogers, 1998). Dramatic results from these studies from the 1980s and 1990s helped to raise the consciousness of leaders at the federal level regarding the serious consequences of ineffective education for students with disabilities (Blackorby & Wagner, 1996; Herr, 1997; West & Taymans, 1998).

Specifically, students with disabilities did not fare as well as their nondisabled peers after secondary school in terms of dropout rates, residential independence, employment, community participation, and obtaining appropriate living skills (Devlieger & Trach, 1999; Geenen, Powers, & Lopez-Vasquez, 2001; Lehman, Bassett, & Sands, 1999; National Council on Disabilities, 2000a). The low rate of graduation pointed to a gap between the legislative intent of IDEA and the successful implementation of secondary programs for students in special education (Bakken & Kortering, 1999; Katsiyannis, Yell, & Bradley, 2001). As a result, revisions to IDEA focused on the exit outcomes of students with disabilities and their transition from school to adult life (Blackorby & Wagner, 1996; Herr, 1997; West & Taymans, 1998). That is, rather than focusing on moving students through the educational system with the goal of finishing school, the focus of IDEA was placed on reducing the dropout rates of students with disabilities while helping them obtain sufficient skills to participate in society after their school career had ended (Colley & Jamison, 1998; Yell & Shriner, 1997).

New amendments to IDEA passed in 1997 mandated a number of changes to the IEP. These changes included the requirements that measurable annual goals be stated, that objectives be benchmarked, that parents and educators be encouraged to resolve differences by using non-adversarial methods, that a statement of transition service needs be written for students age 14 or younger, and that discipline of students with disabilities be addressed (Huefner, 2000; Katsiyannis et al., 2001; Reilly, 1999).

In December of 2004, IDEA was revised again with changes related to the transition requirements for students with disabilities (Council for Exceptional Children, 2004b). However, due to the recent revision of this law, at the time of this writing the federal

regulations have not been established and states are required to continue using IDEA 1997 regulations. In addition, this study was initiated when IDEA 1997 was law; therefore, the transition requirements of IDEA 1997 will be emphasized.

The purpose of this literature review is to describe (a) post-school outcomes for youth with disabilities, (b) best practices in transition planning, (c) the federal laws that have greatly influenced the education and transition services for secondary students with disabilities, (d) compliance of states with the transition services requirements of IDEA, (e) the conceptual framework of the Transition Outcomes Project, and (f) Transition Services Project of Michigan.

## Post-School Outcomes for Youth With Disabilities

To determine how IDEA has affected the lives of children and youth with disabilities, Congress mandated a series of studies of previous students' post-school outcomes, including employment, wages earned, dropout rates, arrest rates, residential independence, community participation, and marriage and parenthood (Sitlington et al., 2000; U.S. Department of Education, 1996).

### *Employment and Wages*

Employment is a major factor in a young person's achievement of economic independence. Especially in industrialized nations, a person's sense of self-worth and value to society is often enmeshed with working. These facts make it particularly critical that the rate of competitive employment for youth with disabilities lags significantly behind that of nondisabled youth (Blackorby & Wagner, 1996; Fabian, Lent, & Willis, 1998;

Hasazi, Gordon, & Roe, 1985; Morningstar, 1997; Reguera, 1995). Further, their median hourly wage is lower (Colley & Jamison, 1998; Taylor, 1998, 2000a; Wagner, 1989; Wagner et al., 1991). Thus, in 1997, one third (34%) of adults with disabilities lived in a household with an annual salary of $15,000, compared with only about one in eight (12%) of those without disabilities (National Council on Disability, 2000b; Taylor, 2000a). Similarly, in recent studies, youth with disabilities were more likely to be poor than youth in general, and to live in households with the risk factors of low income, unemployment, and heads of households who were poorly educated (Wagner, Cameto, & Newman, 2003). Due to lower wages, 20% of Americans with disabilities are living in poverty (Mauro, 2000). Further, only 25% of people with disabilities receive health insurance benefits, while 69% are working as unskilled laborers (Colley & Jamison, 1998; New York State Education Department, 1997a, 1997b; U.S. Department of Education, 1998).

*Dropout Rates*

Dropout rates among students who receive special education services also exceed the rates of their nondisabled peers (Benz et al., 2000; Blackorby & Wagner, 1996; Katsiyannis, Zhang, & Archwamety, 2002; Kortering & Braziel, 1999; National Center for Education Statistics, 2000; Rylance, 1998; Sinclair et al., 1998; Thurlow, Ysseldyke, & Reid, 1997; U.S. Department of Education, 1994). Further, students with severe emotional impairments leave school without graduating at a higher rate than students with other disabilities (Blackorby & Wagner, 1996; National Center for Education Statistics, 2000; Rylance, 1998; Wagner, Cameto, & Newman, 2003). On average, students with disabilities who dropped out of school were 18 years old, but these students had accumulated,

on average, 10 credit hours despite all the years that they spent in high school (Wagner et al., 1993). In addition, individuals with disabilities are less likely than other dropouts to eventually earn their high school diploma (Office of Special Education Programs, 2000; Scanlon & Mellard, 2002). This lack of a high school diploma poses a problem in employment for students with disabilities because even among employment options suitable for individuals without high school credentials, those who dropout are disadvantaged in competitive employment markets (Schwartz, 1995; Sitlington & Frank, 1990).

*Arrest Rates*

Recent studies show that one out of five youth with disabilities had experienced one or more serious consequences of their behavior, including being suspended or expelled from school, fired from a job, or arrested (Wagner, Cameto, & Newman, 2003). Thirty percent of students with disabilities have an arrest record after being out of high school for three years (U.S. Department of Education, 1994). Further, higher percentage of arrests was reported for students with disabilities who dropped out of school than for students with disabilities who completed school (Burrell & Warboys, 2000; Doren, Bullis, & Benz, 1996; Malian & Love, 1998). As was the case for dropout rates, the arrest rates of students with serious emotional impairments were the highest of all disability categories, with 58% being arrested by the time they had been out of school for five years (U.S. Department of Education, 1994). Further, the criminal conviction rate for young adults with learning disabilities was much higher than that for nondisabled adults; 31% of individuals with learning disabilities were arrested at least once before they had been out of secondary school for five years (Wagner et al., 1991).

As additional evidence of the higher criminal records of students with disabilities, almost 5% of youth with disabilities were living in correctional facilities three years out of high school (Wagner et al., 1991). Again, these rates were highest for youth with serious emotional impairments, of whom 10% were incarcerated or lived in drug treatment centers, homeless shelters, or similar settings (Wagner et al., 1991). For high school dropouts with disabilities, in general, the arrest rate was 56% during the three to five years after leaving secondary school; additionally, students who dropped out with the label of severe emotional impaired had a 73% arrest rate (Wagner et al., 1993).

*Residential Independence*

Residential independence is defined as having the requisite skills to live on one's own while conducting self-sustaining behaviors, such as paying living expenses, preparing meals, and carrying out basic cleaning activities. Expectations for a student's independence tend to be great: 82% of students with disabilities and 96% of their parents expected these students either to own a home or rent an apartment after high school (Malian & Love, 1998). In reality, however, studies indicate that, on the average, 66% of individuals with disabilities are living with parents or relatives; and only 34% are living independently after being out of school for one year (Colley & Jamison, 1998; Love & Malian, 1997; National Council on Disabilities, 2000a). By comparison, 60% of youth without disabilities live independently immediately after high school (Wagner et al., 1991). Even five years after leaving school, a majority of individuals with disabilities are living with family, compared to 33% of youth in the general population (Blackorby & Wagner, 1996; Colley & Jamison, 1998; Love & Malian, 1997). Finally, a majority of

people with disabilities report that parents, relatives, and friends are the major source of assistance in maintaining a living (Love & Malian, 1997; Sitlington, 1996).

*Community Participation*

Social interactions are important for developing positive social relationships with peer groups, learning to get along with others, and becoming part of the community. While attending school, the rate with which youth with disabilities engage in extra-curricular activities remains below that of the general population (Wagner, Cadwallader, & Marder, 2003; Wagner, Cameto, & Newman, 2003). After leaving postsecondary education, where structured opportunities for social interaction are less common, many individuals with disabilities live in social isolation. Social isolation (defined as not seeing friends at least once a week; not belonging to a school or community group; and not being married, engaged, or living with someone of the opposite sex) was reported by 5% to 8% of youth with disabilities who had been out of school for three to five years (U.S. Department of Education, 1994; Wagner et al., 1993). Further, more people with disabilities (35%) than those without disabilities (21%) report that they are "not at all involved" in their communities while also communicating that they are "not at all satisfied" with their level of community involvement (Taylor, 2000b).

Not surprisingly, individuals with disabilities are twice as likely as peers without disabilities to say that they feel isolated (Taylor, 2000b). For example, youth with disabilities reported that they saw friends less frequently the longer they were out of school. Socialization was higher among males than females with disabilities (Wagner et al., 1991).

One third of those who were socially isolated worked competitively, while 10% were in sheltered or supported jobs (Wagner et al., 1993).

Interestingly, 54% of adults with disabilities report that community organizations have not encouraged them to participate, 46% claim that they are not aware of what activities exist in the community, while 70% maintain that their disabilities get in the way of them attending cultural or sporting events or socializing with other adults (Taylor, 2000b; U.S. Department of Education, 1998).

### *Marriage and Parenthood*

Given the rates just cited for social isolation, it is not surprising that youth with disabilities are less likely than those in the general population to be married. Research shows that three to five years after leaving school, 15% of young men and 30% of young women are married; by comparison, among the general population, 22% of young men and 38% of young women are married (Wagner et al., 1991). Wagner and colleagues (1991) found that 20% of young women with disabilities were single mothers, and one third of these single mothers lived alone with their children.

## Best Practices in Transition

As seen in the preceding section, results of post-school and employment outcomes studies of youth and young adults with disabilities strongly indicate the need for schools, agencies, and parents to promote successful transition from school to adult living. A number of specific recommendations have been advanced for facilitating successful

movement from school to adult life for youth with disabilities. These recommendations are known as best practices for transition (Greene, 2003).

Kohler and her colleagues (e.g., Kohler, 1993, 1996, 1998; Kohler, DeStefano, Wermuth, Grayson, & McGinty, 1994) developed *The Taxonomy for Transition Programming* (Kohler 1996) to systematically sort these best practices into five categories: (1) student-focused planning, (2) student development, (3) interagency and interdisciplinary collaboration, (4) family involvement, and (5) program structure.

*Student-Focused Planning*

The major components of student-focused planning are IEP development, student participation, and planning strategies (Kohler 1996; Kohler & Field, 2003). In transition planning, a unique plan is designed for the individual student determined by his or her wants and needs with input from the family. Thus, the plan maps out a path to help students achieve their goals in adult life, as opposed to simply placing them into available transition services and programs in the community. During this process, it is important to use information from assessments (whether formal or informal) and obtain information from the student and parents to develop the transition goals in the IEP (Thoma, 1999; Whitney-Thomas, Shaw, Honey, & Butterworth, 1998).

IDEA 1997 requires that transition planning begin at the age of 14 and that a student's preferences and interests be taken into account when planning transition services (PL 105-17, Section 602). Wehman, Everson, and Reid (2001) emphasized the importance of using person-centered practices to individualize the transition planning process and outcomes. Research shows that many students are passive about participating in IEP

meetings (Martin, Marshall, & Sale, 2004; Morningstar, Turnbull, & Turnbull, 1995; Powers, Turner, Matuszewski, Wilson, & Loesch, 1999). Student input in transition planning is missing in many transition programs in the United States (Everson et al., 2002; Grigal et al., 1997; Williams & O'Leary, 2001), due, in part, to a lack of student knowledge about themselves, missed opportunities, and inadequate information needed to make informed choices about post-school options (Lehman, Bassett, Sands, Spencer, & Gliner, 1999; Zetlin & Hosseini, 1989). Students must be given the opportunity and be taught the necessary skills to advocate and speak for themselves while self-evaluating their progress towards their post-school goals and outcomes (Field, Hoffman, & Posch, 1997; Martin, Marshall, & Maxon, 1993).

*Student Development*

The student development category in Kohler's (1996) taxonomy consists of teaching students with disabilities the skills and strategies that enable them to reach their goals. This may encompass life skills instruction, career and vocational curriculum, and structured work experience. Student development can also include assessment and identification of support services that students may need to be successful both at work and in school.

Research shows that career and vocational education fused into the curriculum can help reduce dropout rates (Harvey, 2001b; Razeghi, 1998; Rylance, 1998; Stolting, 1998). Another integral part of the transition education for students with exceptionalities is life skill instruction for successful functioning in the community and in adult life (Patton, Cronin, & Jairrels, 1997; Sitlington, 1996).

Through these student developmental activities, students can also develop self-determination skills (Kohler & Field, 2003). Self-determination means knowing what one wants in life and having the means and skills to achieve one's goals (Field & Hoffman, 1994; Martin, Peterson, & Van Dycke, 2002). Self-determination is an important element while in school but more important outside the classroom after graduation (Battle, Dickens-Wright, & Murphy, 1998; Field & Hoffman, 1996; Field et al., 1997; Palmer, Wehmeyer, Gipson, & Agran, 2004). Studies have found that students who are more self-determined were more independent and were more likely to be working in jobs at higher hourly wages and with health benefits (Wehmeyer & Palmer, 2003; Wehmeyer & Schwartz, 1997).

In summary, the practices subsumed under this category increase a student's knowledge of himself, help develop the necessary skills for successful transition to adult life, and provide opportunities to try these newly acquired skills under the guidance and direction of school personnel (Kohler & Field, 2003).

*Interagency and Interdisciplinary Collaboration*

The interagency and interdisciplinary collaboration portion of the *Taxonomy for Transition Programming* emphasizes a collaborative framework and cohesive service delivery (Kohler, 1996). IDEA 1997 strongly encourages collaboration among schools and community agencies in the design and delivery of transition services for youth with disabilities. For example, referrals to adult agencies should occur before graduation so the school can assist with the application process and ensure services with the appropriate

agency to facilitate achievement towards transition goals (Dowdy, 1996; Dowdy & Evers, 1996; Karge et al., 1992).

Many different people and agencies may be involved in facilitating a transition plan because no single agency is capable of offering the vast array of transition services and programs needed by the full range of youth with disabilities (Chadsey-Rusch & Rusch, 1996). Interagency collaboration involves the coordination of multiple personnel, agencies, programs, and services that work together to promote successful transition for students with disabilities from school to work (Kohler, 1996; Kohler & Field, 2003).

Interdisciplinary collaboration, or various groups of professionals from multiple disciplines working together may include professionals representing (a) general education, (b) special education, (c) vocational education, (d) psychology, (e) speech and language therapy, (f) adaptive physical education, (g) movement, orientation, and mobility, (h) physical therapy, (i) occupational therapy, (j) vocational rehabilitation, (k) independent living, and (l) recreation and leisure therapy (Asselin, Todd-Allen, & deFur, 1998; Harvey, 2001a; Katsiyannis, deFur, & Conderman, 1998; Katsiyannis & Zhang, 2001; Kortering & Braziel, 1999; Weishaar, 2001).

In order for interdisciplinary and interagency collaboration to be effective, all participants must understand their roles and responsibilities, the types of transition services each agency and professional can provide, and how to engage in effective collaborative consultation (Johnson, Stodden, Luecking, & Richard-Mach, 2002). Benz, Johnson, Mikkelsen, and Lindstrom (1995) and Dowdy and Evers (1996) found that when personnel working for the same agency understand the roles and responsibilities of their colleagues and develop cooperative and collaborative relationships, they are more likely

to provide better transition services to youth with disabilities. Finally, the benefits of collaboration include learning from each other and satisfaction during group work (Holen, 2000; Ochoa, Gottschall, & Stuart, 2004).

*Family Involvement*

Active family involvement is one of the best and most consistent predictors of the post-secondary adjustment of young adults with disabilities (Blackorby & Wagner, 1996; Greene, 2003; Hasazi et al., 1985; McNair & Rusch, 1991). Family and parent involvement in transition planning is considered an important best practice in transition. Within the *Taxonomy for Transition Programming*, the family component consists of training, involvement, and empowerment (Kohler, 1996).

IDEA 1997 (PL 105-17, Section 300) requires parent notification when transition planning is scheduled as part of an IEP meeting, and parents must be invited to attend the meeting. Parental input is an important element associated with success in the transition process as families can represent the hopes and dreams of a youth with a disability while possessing a wealth of information about the youth's strengths, abilities, likes, dislikes, and limitations (McNair & Rusch, 1991). Families can participate in a student's transition by being involved in the planning, assessment, decision-making, and policy development (Kohler & Field, 2003). Meaningful family involvement in transition may lead to empowerment and identification of family needs (Turnbull & Turnbull, 1993).

Family-focused training may be necessary to help families become better advocates for their youth with disabilities, resulting in improved services and opportunities. Such training may include teaching families the process for referral to adult agencies, the

mechanics of developing an IEP, effective strategies for supporting the efforts of a student with disabilities, strategies for accessing adult community services, and other information specific to their son's or daughter's transition from school to the adult community (Johnson et al., 2002; Karge et al., 1992).

Previous studies have shown historically low participation rates of families in IEP and transition-related meetings and a tendency for families to become less involved in and informed about the programs in which their youth are participating as he or she grows older (Geenen et al., 2001; Halpern & Benz, 1987; McNair & Rusch, 1991). However, research has shown a shift of parent participation from a predominately passive role as recipients of information from school personnel to a more empowered, active, family-centered role (Johns, Crowley, & Guetzloe, 2001). This shift may be a result of increased parental understanding of the value of their contribution to their child's education. This participation is important for student achievement, and IDEA recognizes the significance of this participation by mandating collaboration between special educators and families (Muscott, 2004).

*Program Structure and Attributes*

The final element in the *Taxonomy for Transition Programming* includes the program structures that must be in place to deliver transition-focused education and services. These structures include philosophy, planning, policy, evaluation, resource allocation, and human resource development (Kohler, 1996; Kohler & Field, 2003).

School personnel and agencies must have knowledge of transition practices and be organized in a way that promotes student development, incorporates student-focused

planning, fosters collaboration with each other, and encourages and obtains family involvement (Blalock et al., 2003; Kohler, 1996). In addition, high schools should offer curricular options that focus on successful transitioning to the adult world. Such options may include community-based learning opportunities, work-related opportunities, and inclusion of students in the social life of the school (Harvey, 2001b; Richardson, 2001).

Knowledge about the transition planning process is essential. Educators and agency personnel must be must be informed about transition approaches in order to implement all the other practices featured in the taxonomy (Johnson et al., 2002; Knott & Asselin, 1999; Kohler, 1996).

## Federal Laws Influencing Transition Services

Education designed specifically to address the schooling needs of children with disabilities is a fairly recent development. Prior to the 1970s, many states denied children with disabilities access to education, and public schools had no legal obligations to educate these students (Herr, 1997; Yell et al., 1998). In 1975, the landmark federal law, the Education for All Handicapped Children Act (PL 94-142), was passed, which provided states with federal funding to assist in educating students with disabilities (West & Taymans, 1998; Yell et al., 1998). This legislation declared that students with disabilities had the right to (a) nondiscriminatory testing, evaluation, and placement procedures; (b) education in the least possible restrictive environment; (c) procedural due process, including parent involvement; and (d) a free and appropriate public education (West & Taymans, 1998; Yell et al., 1998).

*Individuals With Disabilities Education Act of 1990*

The Education for All Handicapped Children Act was amended in 1990 and renamed the Individuals with Disabilities Education Act (IDEA). Several major changes were made, including: (a) language was changed to emphasize the person first; (b) students with autism and traumatic brain injury were identified as a separate disability category; and (c) plans for transition were required for secondary students with disabilities (Yell et al., 1998).

IDEA 1990 embodies six major general provisions that apply to all students with disabilities: (1) all children with disabilities will receive a free and appropriate public education at the public expense, and an IEP must be developed and implemented for every student with a disability; (2) school personnel must collaborate with parents and students while developing and implementing the IEP; (3) school districts must provide procedural safeguards to protect the rights of children with disabilities; (4) public schools must educate all children with disabilities regardless of the severity of their disability; (5) students with exceptionalities must be educated with children without disabilities to the maximum extent appropriate; and (6) school personnel must use unbiased evaluation methods to determine whether a child has a disability (Hardman, Drew, & Winston-Egan, 2002).

To improve on the important transition or movement from school to adult life, Congress passed significant amendments to the law that focused on improving the preparation of individuals with disabilities for life after high school (Hasazi et al., 1999; Storms et al., 2000; Yell & Shriner, 1997).

Specifically, the federal government mandated legislation that spans fields that historically have operated independently of each other, including special education, vocational technical education, rehabilitation, and workforce development (Colbridge, 2000; Herr, 1997; Yell et al., 1998). As a result, current laws related to transition include the Americans with Disabilities Act of 1990 (PL 101-336); the Carl D. Perkins Vocational and Applied Technology Educational Act Amendments of 1998 (PL 105-332); the School-to-Work Opportunities Act of 1994 (PL 103-227); and the Improving America's Schools Act of 1994 reauthorized as No Child Left Behind in 2002 (PL 107-110) (Colbridge, 2000; Culatta, Tompkins, & Werts, 2002; Hardman et al., 2002; Herr, 1997; Yell, 1997).

*Transition*

IDEA 1990 was the first federal legislation mandating that a statement of needed transition services be included in the IEP for each student with a disability and holding special educators responsible for initiating the transition planning process (Hardman et al., 2002; Yell, 1997). IDEA 1990 defines transition services as:

> A coordinated set of activities for a student with a disability that (a) is designed within an outcome-oriented process, which promotes movement from school to post-school activities, including post-secondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation; (b) is based upon the individual student's needs, taking into account the student's preference and interests; and (c) includes instruction, community experiences, the development of employment and other post-school adult living objectives, and, if appropriate, acquisition of daily living skills and functional vocational evaluation. (PL 98-199, Section 602 [30])

*Student Involvement*

IDEA 1990 also emphasized the importance of involving students with disabilities in the planning of transition services and goals at IEP meetings. Such participation allows for individual students' needs and choices to be communicated to other members of the IEP team and, ultimately, be honored and included in transition planning. IDEA 1990 mandated this involvement as follows:

> If a purpose of the meeting is the consideration of transition services for a student, the public agency [school] shall invite the student; and a representative of any other agency that is likely to be responsible for providing or paying for transition services. If the student does not attend, the public agency shall take other steps to ensure that the student's preferences and interests are considered; and if an agency invited to send a representative to a meeting does not do so, the public agency shall take other steps to obtain the participation of the other agency in the planning of any transition services. (PL 98-199, Section 1412 [a, d])

*Individuals With Disabilities Education Act Amendments of 1997*

IDEA 1990 was amended and signed into law by President Clinton in 1997. The reauthorized legislation is called the Individuals with Disabilities Education Act Amendments of 1997 (PL 105-17). This legislation is results-oriented, focusing on the outcomes of students with disabilities while emphasizing the importance of reducing the dropout rate for these students (Abderholden & Jordon, 1999; Benz et al., 2000; Sinclair et al., 1998; U.S. Department of Education, 2000). IDEA 1997 is restructured from seven to four parts: Part A, General Provisions; Part B, Assistance for the Education of All Children with Disabilities (school age/preschool programs); Part C, Infants and Toddlers with Disabilities; Part D, National Activities to Improve the Education of Children with Disabilities (Yell & Shriner, 1997).

Some of the changes to this legislation are significant. Significant changes relate to evaluations, the content of students' IEPs, and the process for determination of educational placements, while also broadening the scope of the transition planning process (Abderholden & Jordon, 1999; Cutshall, 2001; Huefner, 2000; Reilly, 1999).

*Transition Services*

The definition for transition services remained the same as in the IDEA of 1990, with the exception that the "coordinated set of activities" were expanded to include related services such as transportation and support services such as speech and language pathology and audiology services, psychological services, physical and occupational therapy, recreation, social work services, and counseling services, which includes rehabilitation counseling (PL 105-17, Section 602 [29]). The new mandates in IDEA 1997 describe the following requirements:

> (I) beginning at age 14, and updated annually, a statement of the transition service needs of the child under the applicable components of the child's IEP that focuses on the child's courses of study (such as participation in advanced-placement courses or a vocational education program); (II) beginning at age 16 (or younger, if determined appropriate by the IEP team), a statement of needed transition services for the child, including, when appropriate, a statement of the interagency responsibilities or any needed linkages. (PL 105-17, Section 614 [d] [1] [A] [i-vii])

IDEA 1997 requires that special educators, students, and families be aware of curricula and diploma options, prerequisites for vocational-technical programs, and college entrance requirements as early as the middle school years (Yell & Shriner, 1997), and mandates that a statement of needed transition services for each student be included in the IEP by age 16.

The members of the IEP team for transition planning must include the student; the parent(s) or guardian; a general education teacher (if the student is, or is likely to be, participating in general education); a special education teacher; a representative of the school district who is knowledgeable about the curriculum and resources available at the public agency and is empowered to commit the resources; an individual who can interpret evaluation results and consider how these results will determine instruction; appropriate agency personnel; and other individuals deemed necessary by the parents or local school (PL 105-17).

*Agencies*

To carry out transition services and planning requires a team effort. Teams may include personnel from community and adult services agencies as well as the public schools and the student's family. The special education staff in the school district initiate interagency planning by inviting representatives of relevant outside agencies to participate in a student's IEP meeting, and a statement of each public agency's responsibilities or linkages is written into the IEP before the student leaves the school system (Community Alliance for Special Education, 2000; Yell & Shriner, 1997). If an invited outside agency does not participate at the IEP meeting or cannot provide the agreed-upon services, it is the obligation of the school district personnel to reconsider how to meet the unique needs and goals of the respective student with disabilities:

> If a participating agency fails to provide agreed-upon transition services contained in the IEP of a student with a disability, the public agency responsible for the student's education shall, as soon as possible, initiate a meeting for the purpose of identifying alternative strategies to meet the transition objectives, and, if necessary, revising the student's IEP. Nothing in this part relieves any participating agency, including a state vocational rehabilitation agency, of the responsibility to

> provide or pay for any transition service that the agency would otherwise provide to students with disabilities who meet the eligibility criteria of that agency. (PL 05-17, Section 1412 [a])

*Transferring Rights at Age of Majority*

The transfer of rights at the age of majority is the final point relevant to transition planning addressed by IDEA. IDEA 1997 states:

> Beginning at least one year before a student reaches the age of majority under state law, the student's IEP must include a statement that the student has been informed of his or her rights and the parent or guardian is made aware of this transfer of rights and that these rights do transfer to the student. (PL 105-17, Section 614 [d] [viii])

However, if a student is determined not to have the ability to provide informed consent, the parent or another appropriate person may be appointed as a legal guardian on the student's behalf (PL 105-17, Section 300.517).

## Compliance With the Transition Services Requirements of IDEA 1997

By mandating transition planning in IDEA, Congress addressed concerns that emerged from studies on post-school outcomes of individuals with disabilities (Furney, Hasazi, & DeStefano, 1997; Shafer & Rangasamy, 1995). The Office of Special Education Programs (OSEP), a division of the Office of Special Education and Rehabilitative Services (OSERS) in the Department of Education, monitors and assesses the effectiveness with which the state education agencies provide appropriate education to students with disabilities (Katsiyannis et al., 1998). One of the target areas of OSEP's monitoring is the transition requirements of IDEA (DeStefano, Hasazi, & Trach, 1997; Furney et al., 1997; U.S. Department of Education, 2000).

After monitoring visits to the states, OSEP (posted on their website at www.ed.gov/offices/OSERS/OSEP/Monitoring/) documents the presence of the transition components of the IEP. Some monitored transition components consist of:

1. The IEP for each student must begin no later than age 16 (and at a younger age, if determined appropriate) (Section 300.346 [b] [1]). The IEP must include a statement of needed transition services, including, if appropriate, a statement of the responsibilities or linkages, or both, of each public agency and each participating agency, before the student leaves the school setting.
2. If a purpose of an IEP meeting is the consideration of transition services for the student, the public agency must invite the student and a representative of any other agency that is likely to be responsible for providing or paying for transition services (Section 300.344).
3. If a purpose of an IEP meeting is the consideration of transition services for a student, notice given to the parents regarding the IEP meeting must, in addition to required other content, (a) indicate this purpose, (b) indicate that the agency will invite the student, and (c) identify any other agency that will be invited to send a representative (Section 300.345 [b] [2]).

*Outcomes of OSEP Monitoring*

Transition programs help students make successful transitions from school to adult life while also promoting self-determination and self-advocacy skills (Battle et al., 1998; Field & Hoffman, 1996; Martin et al., 1993; Szymanski, 1994; Wall & Datillo, 1995). Despite such evidence and mandatory transition planning by IDEA for more than

14 years, full compliance with regard to transition services has not been attained (Kohler & Field, 2003; Williams & O'Leary, 2001). For example, Williams and O'Leary (2001) analyzed OSEP monitoring reports and found that 44 of the 54 states and entities monitored between 1993 and 1997 were out of compliance with IDEA. Similarly, Kohler and Field (2003) noted that 37 out of the 39 reports of the states and entities monitored by OSEP between 1993 and 2000 were cited for noncompliance in some aspect of IDEA transition requirements.

*Studies of IEP Transition Compliance Using Various Instruments*

Different approaches have been used to assess compliance of specific states with IDEA's requirements for transition planning and use of best practices strategies. A search of the Web, ERIC documents, and peer-reviewed journals, revealed five published studies that used specific instruments to measure compliance with IDEA requirements for the transition plans of youth with disabilities. These include Everson and colleagues' (2002) statewide investigation of transition IEPs in Louisiana; McMahan and Baer's (2001) survey of persons involved in transition planning regarding compliance of transition IEPs; Grigal et al.'s (1997) evaluation of transition IEP components; Lawson and Everson's (1994) national study of transition IEPs for students who were deaf-blind; and deFur et al.'s (1994) analysis of 100 transition IEPs of students with learning disabilities in Virginia.

*Statewide Investigation of Transition IEPs in Louisiana*

Everson and colleagues (2002) used the instrument *IEP/Statement of Transition Services Review Protocol* (Zhang, Everson, & Guillory, 1999) to conduct a review of the transition components of 500 students' IEPs in the state of Louisiana. This instrument consists of four sections: (1) demographics, (2) format of the transition services page, (3) IDEA's definition of transition services, and (4) valued practices. Results showed that transition service plans did not fully address IDEA transition-mandated components. Only 33% documented students' intentions for continuing/adult education, and 28% addressed the need for adult services. Further, only 61% recorded students' predictions for future independent living. In addition, fewer than half (47%) of the transition IEPs addressed community participation for the student. Unfortunately, after the implementation of the Louisiana Statewide Transition Project activities, a follow-up review of these same transition IEPs was not conducted to identify and document improvements; thus, no evidence is available to indicate whether that the interventions of the Louisiana Statewide Transition Project improved the transition components in IEPs.

*Transition Compliance and Perception of Stakeholders*

McMahan and Baer (2001) surveyed 186 persons involved in transition planning, including parents, educators, and adult service professionals in Ohio. The study used a combination of the *National Survey of the Implementation of the IDEA Transition Requirements* (Johnson, Sharpe, & Sinclair, 1997) and the *Transition Policy Compliance and Best Practices* (Baer, Simmons, & Flexer, 1996). This resulting instrument consisted

of four subsections: (1) parent notification, (2) participation in meetings, (3) IEP content, and (4) agency responsibility. Full compliance with IDEA was not achieved in any of the four categories. For example, 40% of school personnel did not maintain regular contact with agencies over time, and only 54% of school personnel contacted agencies to obtain agreement to participate. The study also noted that 33% of school personnel indicated that the transition IEP team did not develop employment or postsecondary objectives for the student with disabilities. Finally, 39% of school personnel reported that the course of study of youth with disabilities was not identified at the appropriate age (McMahan & Baer, 2001).

*Transition Components in Older Students With Disabilities*

Grigal and colleagues (1997) analyzed the transition components of the IEPs of 94 students between 18 and 21 categorized as having mild or moderate mental retardation, learning disabilities, or emotional/behavioral disorders. The instrument used was a modified version of the *Statement of Transition Services Review Protocol* (Lawson & Everson, 1994). This revised instrument contained 25 questions in four sections: (1) demographics, (2) transition components format, (3) compliance with IDEA's transition mandate, and (4) reflection of best practices. In terms of compliance with IDEA, results showed that independent living goals were stated in 53.1% of the students' IEPs, and community participation was written as a goal in 42% of the plans. A little more than half (59.6%) of the IEP plans reviewed included leisure and recreation goals.

*Statement of Transition Services of Students Who Are Deaf-Blind*

Lawson and Everson (1994) conducted a national review of transition statements for 61 students who were deaf-blind using the *Statement of Transition Services Review Protocol* (Lawson & Everson, 1994). This review protocol contained 30 multiple-choice statements divided into three areas: (1) format of the student's plan, (2) content reflective of IDEA's mandate, and (3) content reflective of deaf-blind practices. Results showed that the major components of transition services were absent. Specifically, approximately one half (48.1%) of these students' transition IEPs did not contain timelines, and 36.2% did not include the names of responsible personnel to complete the action step. A little over 40% (40.4%) of transition plans included activities in vocational training, and only 36.5% included activities in community participation. Adult service options were written in fewer than one fourth (21.2%) of transition IEP plans. In addition, only slightly over half (52.1%) of the reviewed plans included the involvement of the student's family. Finally, none of these students' IEPs contained written documentation of all IDEA's outcome areas (Lawson & Everson, 1994).

*Transition Plans of Students With Learning Disabilities in Virginia*

deFur et al. (1994) analyzed the transition plans of 100 students with learning disabilities. Ranging in age between 14 and 20 years, the students were attending one of 14 selected schools in the state of Virginia. An instrument designed by the authors was divided into four sections to obtain (1) student demographic information, (2) information about the transition process, (3) the IEP meeting's participants, and (4) the adult services

recommended (deFur et al., 1994). Findings showed that approximately one third (33%) of the students were present at their transition IEP meeting. Only 9% of these students' transition IEPs included continuing education goals identified for the student, and living arrangement options were listed for only a small number (31%) of students in the higher grades.

## Conceptual Framework of the Transition Outcomes Project

Dr. Edward O'Leary, education specialist, Mountain Plains Regional Resource Center, created the model called the Transition Outcomes Project while presenting to educators, parents, and adult agencies nationwide concerning IDEA transition services mandates (O'Leary, 2002). In 1998, Wyoming became the first state to field test this model (O'Leary, 2002), and the volunteer school districts in Wyoming that used the Transition Outcomes Project reported positive changes in the transition IEP process (O'Leary, 2002). In 1999, other states, districts, and regional centers implemented the Transition Outcomes Project (i.e., Delaware, Montana, the BIA-Papago Agency in Arizona, and the Shiawasee Regional Education Service District in Michigan). In 2000, Iowa, Michigan, Nebraska, New Mexico, and Wisconsin also began to use the model. Alaska, Arizona, Colorado, Kansas, Maryland, North Dakota, Pennsylvania, South Dakota, and Utah, as well as the Minnesota-Southwest/South-central Services Cooperative, initiated the model in 2001. Since this time, other regions including the Texas-Regional VII Educational Service Center and the Minnesota-Regional 10 Service Cooperative have begun to implement this model (O'Leary, 2002).

*Transition Outcomes Project Steps*

The Transition Outcomes Project is developed around a conceptual framework designed to identify specific problems in implementing the transition service requirements of IDEA. This framework includes: (a) voluntary systems change; (b) focused and manageable implementation and practices; (c) emphasis on program improvement, not strictly compliance; (d) thorough personnel training; (e) clear and concise IEP reviews; (f) clear follow-along and follow-up communication strategies; and (g) building state capacity by empowerment of the local education agencies (O'Leary, 1999).

*Voluntary Systems Change*

The Transition Outcomes Project was based on the premise that lasting change begins with the local staff (O'Leary, 1999). If local staff initiates modifications in the IEP process, permanent changes are more likely to happen than if initiated by an administrator (O'Leary, 1999). In this model, the local education agency assumes ownership of the problems and is empowered to find the solutions. This empowerment occurs when decisions of school personnel are valued, and other ideas by an outside entity are not mandated. The individual school district is able to make its own alterations to its system, process, forms, case management, and programming. Finally, each school district sets its own unique target goals for each transition requirement and establishes a timeline for reviews.

*Focused and Manageable Implementation and Practices*

Promising practices or "best practices" related to transition include fostering self-determination, student-focused planning, transition education, family and student participation, career awareness and exploration, and agency cooperation (Bounds, 1997; Chadsey-Rusch & Heal, 1995; Farley & Johnson, 1999; Frank, Sitlington, Cooper, & Cool, 1990; Gardecki & Neumark, 1998; Halloran & Johnson, 1992; Kazdin, 1987; Knight & Aucoin, 1999; Kohler, 1993, 1998; Wagner, 1990; Weber, 1987). Indeed, IDEA has mandated some of these "best practices."

The Transition Outcomes Project focuses on the compulsory IDEA transition requirements, not on all of the "best practices" that have emerged from the research (Fahle et al., 2002; O'Leary, 1999). The reason for this specific focus is the belief that combining the requirements of IDEA with all the "best practices" is overwhelming to the teachers, parents, and other professionals who are trying to implement the requirements of IDEA 1997 (O'Leary, 1999, 2002).

*Program Improvement*

The emphasis of the Transition Outcomes Project is on improving the transition IEP, rather than on monitoring to make certain that all requirements are fulfilled. Even though the reviewers (from now on called "Technical Assistants") use a checklist that outlines IDEA's transition services requirements, the data obtained from their review are used to find the strengths and weaknesses of the IEPs in a school district. The local school then focuses on improving weak areas by, for example, modifying forms,

strengthening case management, improving teacher training, or initiating parent forums (O'Leary, 1999, 2002).

*Training of Personnel*

The Transition Outcomes Project trains personnel on many fronts. First, the Technical Assistants receive training on the instrument used for checking the transition requirements in students' IEPs (O'Leary, 2003). This training includes definitions, examples, and familiarization with each local school's unique IEP form. Second, the local school staff is trained on the specific process to be used (O'Leary, 2003). Specifically, they are introduced to the instrument, provided clear and concise descriptions of the requirements for the review, and given information on IDEA transition requirements.

*Clear and Concise Reviews of Students' IEPs*

Certain guidelines must be put into place prior to the IEP reviews. To that end, each district identifies a site coordinator who, in turn, apprises the administration of the Transition Outcomes Project process, coordinates a review team, and arranges for the IEPs selected for review to be accessible to the Technical Assistants. Sample IEPs of students with disabilities are reviewed using the *Transition Requirements Checklist* (O'Leary, Lehman, & Doty, 2001) or some other designed and approved instrument. Each site coordinator reviews the district's IEP form with the Technical Assistants. In addition, the Technical Assistants independently review an actual transition IEP of a student using the instrument. After the review, the site coordinator and Technical Assistants discuss each item on the checklist in terms of the rating, reasons for the rating, and

comments about the various items. Consensus concerning the checklist is reached. In addition, checks for consistency are conducted periodically throughout the process.

*Follow-Up and Follow-Along Communication Strategies*

Communication is a necessary component in this model. After the Technical Assistants complete the checklists of all IEPs of selected students, the data are compiled. The results are subsequently shared with the school district, and school district personnel develop and implement action plans focused on improving the students' transition IEPs. Each district holds scheduled meetings during the implementation period of the action plan to discuss concerns, issues, and problems while brainstorming solutions on how to best implement IDEA transition requirements (O'Leary 1999, 2003).

*Building State Capacity*

The Transition Outcomes Project is presented as a model for learning and developing. Learning occurs during the training and subsequent implementation of the strategies; development occurs when interventions are implemented to improve transition planning for students with disabilities. Gained knowledge on transition planning and experiences with implementing strategies are shared. Thus, Technical Assistants and school staff who have participated in this process can provide knowledge and training to other school districts in the state (O'Leary, 1999).

*Transition Outcomes Project Procedures*

Parallel to the conceptual framework, the Transition Outcomes Project is organized around a process that includes the following steps: (a) developing an evaluation instrument, (b) training personnel to use the instrument, (c) collecting baseline data, (d) developing action plans, (e) implementing these plans, and (f) conducting follow-up evaluations to determine improvement and determine next steps for expanding training and implementation (O'Leary 2001a, 2003).

*Evaluation Instrument*

An instrument is used to determine the extent to which each local school district improved compliancy with IDEA 1997. The *Transition Requirements Checklist* (O'Leary et al., 2001; Storms et al., 2000) is the recommended instrument; however, participants may determine changes in the instrument that would fit with this participant's transition plans. *The Transition Requirements Checklist* is organized into three broad areas: (1) participants in the IEP meeting, (2) parent participation or invitation, and (3) content of the IEP (O'Leary et al., 2001). These three areas follow the IDEA guidelines for addressing transition requirements (O'Leary et al., 2001; Storms et al., 2000).

*Personnel Training*

The review team, otherwise known as the Technical Assistants, is identified and trained on the *Transition Requirements Checklist* instrument, process, and procedures (O'Leary, 2001a, 2003). To eliminate bias, it is recommended to use Technical Assistants

who are not employed by the school district. The Technical Assistants must be effective communicators and available to give guidance to the participating school districts.

*Collecting Baseline Data*

The Technical Assistants and the district personnel schedule a date for the first review of selected transition IEPs of students with disabilities (O'Leary, 2000a). The purpose of the first review is to gather baseline data. Another meeting is held to discuss the findings of this review, put a schedule into place for consultation, and determine a date for the second review of the transition components of the originally selected IEPs.

*Developing Action Plans*

After the baseline data have been collected and summarized, a team from the Transition Outcomes Project meets with district personnel to discuss the findings. After strengths and weaknesses in compliance are noted, strategies and interventions unique to the district are developed focusing on improving compliance with the transition requirements of IDEA.

The model requires the school district to review its baseline data. For example, each district needs to determine if the percentages obtained for each transition requirement measured on the checklist are satisfactory. If the percentage is deemed to be satisfactory, no target goal is set. If, on the other hand, the percentage is not satisfactory to the school district, a target percentage score is set and a strategy or strategies are identified to improve compliance. Target goals are set for each transition requirement found to be below 100% compliance if desired by the school district (O'Leary 1999). At this time,

timelines are also put into place for implementation of each strategy. Each district documents its priorities and percentage goals concerning compliance with IDEA transition requirements. The current percentage, target goal percentage, strategies for achieving the goal, person in charge of the goal, and assistance required are documented in the *Transition Outcomes Improvement Process Action Plan* (O'Leary, 1999).

*Implementation of Plans*

Time is allowed for implementation of the strategies recorded in the *Transition Outcomes Improvement Process Action Plan.* During this stage, the Technical Assistants and/or other personnel from the Transition Outcomes Project are available to districts to offer assistance, intervention techniques, knowledge, strategies, and alternative interventions.

*Follow-Up Review and Evaluation*

After the implementation stage, a formal follow-up review occurs, usually after one to two years, utilizing the IEPs included in the first review. This second review documents how well the district has met the target goals recorded in the *Transition Outcomes Improvement Process Action Plan.* That is, the initial baseline data are compared to the findings of the second review to determine possible improvements in compliance to IDEA transition requirements.

Following the second phase of data collection, the Technical Assistants meet with personnel from the each district again. During this meeting, the Technical Assistants report the results of the second review and discuss the next steps for expanding training

and implementation (O'Leary, 2001b). Examples of such steps include staff training, implementation of new IEP forms, establishing new curriculum for students with disabilities, and offering workshops for families.

## Transition Services Project of Michigan

The United States Congress authorized OSERS to initiate a special grant program to make federal funds available to support five-year programs to improve state systems' transition services. Specifically, the goal of this initiative was to improve knowledge and skills for implementing transition services for youth with disabilities, improve working relationships with agencies, promote system change, and develop innovations to implement transition (U.S. Department of Education, 1996). Michigan was a part of this special grant program. After this five-year project ended, the State of Michigan supported a discretionary project, known as the Transition Services Project of Michigan, to continue transition education and innovation. A goal of the Transition Services Project of Michigan was to educate school personnel about IDEA transition requirements and to help these districts become more compliant with the transition services requirements of IDEA 1997. To fulfill this goal, the Transition Services Project of Michigan implemented the Transition Outcomes Project (known as the Michigan Transition Outcomes Project); in conjunction with a number of other transition-focused initiatives. This study is designed to evaluate the effectiveness of the Michigan Transition Outcomes Project.

## Summary

Studies have clearly shown that a higher percentage of students with disabilities fail to move successfully from adolescence to adulthood compared to students without disabilities (Blackorby & Wagner, 1996; Colley & Jamison, 1998; Love & Malian, 1997; McKenna, 2000; Sitlington & Frank, 1990; Taylor, 2000a; U.S. Department of Education, 1995; Wagner 1989).

There is general agreement that appropriate transition planning in the secondary schools may help improve the adult outcomes of students with disabilities (Collet-Klingenberg, 1998; Hasazi et al., 1999; Storms et al., 2000). Specifically, transition plans can assist in preparing students with disabilities to move successfully from high school to adulthood (Collet-Klingenberg, 1998; Hasazi et al., 1999).

Despite strong mandates in IDEA, growing awareness of transition issues, as well as new research into promising secondary transition practices, IDEA's transition requirements are still not being met on a widespread scale (Kohler & Field, 2003; National Council on Disabilities, 2000a; Williams & O'Leary, 2001). Using a variety of instruments to measure compliance with compulsory IDEA requirements in the secondary transition plans of youth with disabilities, several studies have noted the weak portion of these transition IEPs (deFur et al., 1994; Everson et al., 2002; Grigal et al., 1997; Lawson & Everson, 1994; McMahan & Baer, 2001). Unfortunately, interventions used to improve the transition plans have not been noted in these studies. In addition, no posttests have been completed to document transition plan improvement, or if such tests have been completed, the results have not been published.

A goal of the Transition Outcomes Project is to improve states' compliance with IDEA 1997 compulsory transition requirements. The Transition Outcomes Project is organized around a process, model, and conceptual framework and implemented through procedures designed to identify problems with the implementation of the transition services requirements of IDEA 1997 (O'Leary, 2001a). Each district develops unique strategies to address and resolve these problems.

The purpose of this study was to investigate the effectiveness of the Transition Outcomes Project used in Michigan and to determine whether this process resulted in improving compliance with the transition components of IDEA 1997, as well as to examine the perceptions of school personnel who have implemented this model on how it affected the transition planning process for students with disabilities.

# CHAPTER 3

## METHODOLOGY

This chapter identifies and describes the rationale and procedures of the study. First, the purpose of the study and research questions is reviewed. Next, Part 1 of the study is discussed in terms of the procedures employed in the identification and selection of participants, the description of the intervention, and the data analyses employed. Finally, Part 2 of the study is described in relationship to the selection of participants, the instrument used to guide inquiry, the procedures employed to acquire the data, and data analyses.

Transition planning for students with disabilities is both a desirable and a beneficial component in a student's IEP. IDEA 1997 outlines mandatory requirements for transition planning. Unfortunately, many school districts in states across the nation are not in compliance with IDEA's transition requirements. To help districts improve in compliance, the Transition Services Project of Michigan used an intervention model called the Michigan Transition Outcomes Project. The model educates public school personnel about transition requirements and works with school districts to achieve the requirements of transition planning as set forth by IDEA 1997.

This study investigated the effectiveness of the Michigan Transition Outcomes Project as well as the perceptions of school personnel who implemented this model. The following research questions formed the basis for the examination.

Part 1 of the study used quantitative measures to investigate:

1-1. What effects did the Michigan Transition Outcomes Project have on compliance with the IDEA 1997 transition-related IEP requirements?

1-2. Do these effects vary by students' disability categories?

1-3. Do these effects vary by region in which the model was implemented?

1-4. Do these effects vary by content area of the IEP items?

Part 2 of the study used qualitative measures to investigate how implementation of the Michigan Transition Outcomes Project affected the transition planning process for students with disabilities with regard to the following:

2-1. What effects did participation in the Michigan Transition Outcomes Project have on the transition planning process in the participating regions?

2-2. What results were achieved in the regions participating in the Michigan Transition Outcomes Project?

2-3. Did the participating regions implement researched-based practices as a result of their participation?

2-4. What were the strengths and limitations of the Michigan Transition Outcomes Project?

As indicated, the research design used both qualitative and quantitative measures to test the underlying research questions. By using these two approaches, greater depth of analysis was expected (Johnson & Christensen, 2004; Patton, 1990). To analyze the improvements in compliance discussed in Part 1, descriptive statistics and inferential statistics were calculated. In Part 2, the qualitative method of structured interviews

identified how participants perceived the Michigan Transition Outcomes Project affected the transition planning process.

## Part 1: Effects of the Michigan Transition Outcomes Project on Compliance

### *Participants*

The participants worked in public schools throughout the state of Michigan. In June 2000, an invitation to be involved in the Michigan Transition Outcomes Project was offered at a seminar at Central Michigan University in Mount Pleasant, Michigan. Ten school districts expressed an interest in participating. In order to yield broad representation in terms of diversity and geographic location, Transition Services Project of Michigan personnel contacted five additional public school districts. All five districts agreed to participate. These school districts included eight rural districts, one urban district, and six suburban districts. These school districts were located throughout the state of Michigan, including the Upper Peninsula. The participating school districts were districts within eight Michigan Intermediate School Districts, or ISDs. Each school district or ISD (from now on called region) assigned a coordinator or key contact people and enlisted volunteers from the district who were interested in implementing the model. The key contact people were five transition coordinators from the region's ISD and three teachers/transition coordinators who were working in their respected schools.

*Instrumentation*

The instrument designed to measure mandated IDEA 1997 transition components was the *Michigan Transition Requirements Checklist*, based on the *Transition Requirements Checklist* originally created by Storms et al. (2000) and modified by O'Leary and colleagues (2001). The resulting instrument, the *Transition Requirements Checklist,* has been used to measure transition compliance of IDEA 1997 in states like Wyoming, Delaware, Montana, Iowa, Nebraska, New Mexico, and Wisconsin.

Personnel affiliated with the Michigan Special Education and Early Intervention Policy and Monitoring Department and the Transition Services Project of Michigan slightly revised the *Transition Requirements Checklist.* The subsequent *Michigan Transition Requirements Checklist* contains two sections (see Appendix A). Section One includes nine demographic items: reviewer's name, district, student number, student's name, age of student at the time of the IEP meeting, primary disability, date of birth, grade level, and the IEP date. Section Two contains 19 questions that reflect the transition components required by IDEA 1997. One of the questions was eliminated from the data analysis by the state because the structure of the students' IEPs lacked the design to answer the item of age of majority (Yoak-Newman, 2000). Another question was removed from the data analysis because of reservations regarding the consistency of the data collection. Questions in Section Two must be answered by checking the appropriate line corresponding to "yes," "no," or "not applicable." Questions marked as "not applicable" are either due to a student's age (IDEA 1997 has certain requirements that are based on a student's age), or because a particular student is not in need of this specific requirement or service.

The *Michigan Transition Requirements Checklist* differs from the *Transition Requirements Checklist* (O'Leary et al., 2001) on several items. Specifically, the *Michigan Transition Requirements Checklist* does not inquire (a) whether the student requires involvement from an outside agency, (b) whether the public agency took other steps to obtain agency participation if the agency did not appear at the meeting, (c) for documentation concerning the parent notice identifying any other agency that will be invited, (d) if the participating agency from outside of the school system failed to provide agreed upon transition services, and (e) if the public agency responsible for the student's education indicates a meeting to identify alternative strategies to meet the transition objectives. The *Michigan Transition Requirements Checklist* however, adds a question regarding documentation in the IEP of the student's desired post-school outcomes/visions in the areas of education/training, employment, community participation, and independent living.

The *Michigan Transition Requirements Checklist* also includes the citation of the federal regulation that corresponds with each question. Three items on the checklist are not required by IDEA, but the Transition Outcomes Project of Michigan desired information (Fahle, 2002). To note these specific items, the *Michigan Transition Requirements Checklist* places in bold letters "not regulation based" next to these questions.

*Procedures*

The Michigan Transition Outcomes Project is a process that focuses on measurable results that are consistent with the transition requirements of IDEA 1997. Interventions implemented in participating regions consisted of (a) training personnel, (b) selecting random sample student files, (c) initial reviews of the transition components of

selected students' IEPs, (d) developing a plan that was specific for each region to address deficits in transition components, (e) implementing these plans, and (f) reviewing the same students' IEPs to note any changes in compliance.

*Personnel Training*

Transition Services Project of Michigan personnel trained the Technical Assistants to use the review protocol, the *Michigan Transition Requirements Checklist* (see Appendix A). The training, which occurred on three days in October of 2000, included (a) a summary of the purpose of the study, (b) the terminology used in transition, (c) an overview of the *Michigan Transition Requirements Checklist*, (d) instructions for coding each item on the instrument, and (e) identification of transition requirements on local district IEP forms.

According to Cody and Smith (1997), when more than one rater is used to evaluate data, it is important to ensure interrater reliability. In the current study, to ensure reviewer reliability, during the October training, each Technical Assistant individually reviewed four students' transition IEPs that were not part of the study. Following these reviews, the trainer met with them to discuss any differences in rating. As a result, common understanding was reached, and further guidelines were developed to supplement the protocol instructions. The transition components of two IEPs were reviewed at each site using the *Michigan Transition Requirements Checklist.* This review ensured that the Technical Assistants were following the guidelines correctly. Interrater reliability was determined to be 95%; that is, above the acceptable agreement rate (Fraenkel & Wallen, 1993; Glass & Hopkins, 1996).

*Selected Sample of Students' IEPs*

The target IEP samples were from students with disabilities ranging in age from 12 to 24 who had a transition-related IEP. Michigan schools may provide services to youth with disabilities up to 26 years of age under state statutes, but because the post-intervention data collection would occur up to two years later, an age limit of 24 was set for the initial review. All of the students were classified into one of the state-mandated disability categories, including Educable Mental Impairment, Trainable Mental Impairment, Severe Mental Impairment, Severe Multiple Impairment, Autistic, Learning Disability, Emotional Impairment, Visual Impairment, Hearing Impairment, Physically or Otherwise Health Impairment, or Speech and Language Impairment. (The revised *State of Michigan Rules and Regulations for Special Education* went into effect on June 6, 2002. Changes in this law include renaming the categories of Educable Mental Impairment, Trainable Mental Impairment, and Severe Mental Impairment as Cognitive Impairment. Also, the new regulations added the category of Traumatic Brain Injury, while separating Physical or Otherwise Health Impairment into two separate categories. However, these new regulations have no effect on this study because the students' IEPs that were reviewed were evaluated prior to implementation of the revised rules.)

Each participating region reported the number of students with disabilities in the age range of 12 to 24 who had a transition IEP. A *Sample Size Determination Chart* (see Appendix B) set the sample size required to give a 90% confidence interval. After the sample size was determined in each region, a random draw was completed to identify the students' IEPs that would be reviewed.

During the baseline review (from now on called the initial review), the IEPs of 291 students with disabilities were examined using the *Michigan Transition Requirements Checklist.* In the second review of IEPs (from now on called follow-up review), a total of 183 IEPs were examined using the same instrument. Differences in the number of students whose IEPs were evaluated at the two reviews were caused by circumstances such as students moving out of district, graduating, and dropping out of school. Of the 183 individuals, 17 students were not included in the initial review, and therefore were eliminated. As a result, the total number of students' whose IEPs were reviewed during the initial and follow-up reviews was 166.

*Initial Review*

The Technical Assistants visited each participating region and reviewed the selected students' IEPs using the *Michigan Transition Requirements Checklist.* A refresher on how to use the instrument occurred on November 8, 2000, immediately before the Technical Assistants were dispersed into regions to collect the data.

After data from the initial review of students' IEPs were compiled and analyzed, each region's strengths and deficit areas related to the transition requirements were noted. The Technical Assistants then returned to each region and met with the district's assigned coordinator to report the findings. Upon request of one region, the information was also reported directly to the special education director.

*Developing a Plan*

Following the report to the regions concerning initial review finding of students' transition IEPs, each region developed a *Transition Outcomes Improvement Process Action Plan* (for a blank sample, see Appendix C). This action plan focused on improving the transition components identified as the specific region's problem areas with regard to the compliance of the students' transition IEPs. Each region was responsible for determining the percentage set for improvement as well as the strategies to be used to achieve each goal. (Neither the Transition Services Project of Michigan nor the Technical Assistants mandated specific goals.). Each region's plan also named the district person assigned to follow up on each improvement goal, the strategies planned to complete the goal, the target completion date for each strategy, and the necessary assistance needed. Finally, timelines were established for the follow-up review of the students' IEP transition plans.

*Implementation of Plan*

Time measured in years was established for each region to implement the interventions outlined in the *Transition Outcomes Improvement Process Action Plan*. Specifically, the follow-up review of the students' IEPs was completed approximately one to two years after the initial review.

*Follow-Up Review*

At the date and time established by the region, the Technical Assistants returned to review the IEPs that were examined during the initial review. The same instrument was used for this follow-up review. Data from the two reviews of students' IEPs were compared to determine if changes had occurred in compliance with IDEA 1997 transition requirements.

*Data Analysis*

This study used data gathered by the Transition Services Project of Michigan during the implementation of the Michigan Transition Outcomes Project. The Technical Assistants recorded their findings of the review of students' IEPs on the *Michigan Transition Requirements Checklist.*

The first section of the *Michigan Transition Requirements Checklist* recorded the students' age, disability, and region of attendance. Descriptive analyses, including percentages and frequencies, were completed to determine students' demographic information. To determine whether the proportion of students in individual disability categories in this study differed significantly from the expected proportions of students with disabilities in the state of Michigan (Michigan Special Education Statistics, 2002), a chi-square goodness-of-fit test was performed (Wiersma & Jurs, 2004). To meet the chi-square assumption that the expected frequencies are greater than or equal to 5 for 80% or more of the categories (Green, Salkind, & Akey, 2000), the disability categories of Hearing Impairment, Visual Impairment, Autistic, and Severe Multiple Impairment were

categorized as "low incidence." Also, more IEPs were evaluated during the initial review than the follow-up review due to students moving out of district, graduating, and dropping out of school. To investigate whether a given region's student samples followed the expected proportion of the student sample initially taken at the beginning of the study, a chi-square goodness-of-fit test was performed.

In the second section of the *Michigan Transition Requirements Checklist*, each question was marked "yes," "no," or "not applicable." The "not applicable" score was for those students whose age affected the relevance of the question on the checklist or for whom a given item did not apply. At times, multiple items were contained in one question. Therefore, each of these multiple items was given a specific number and called "item." A total of 32 items were included in the 17 questions selected for analysis in this study. Descriptive statistics in terms of the frequency and percentage of affirmative marks by item were reported for both reviews. The concept of compliance was investigated, using three indicators: (1) frequency and percentage of affirmative marks, (2) observed frequency and expected frequency of yes and no marks, and (3) a compliance change score.

*Affirmative Marks*

To initially investigate the concept of "improved compliance," the first indicator is the percentage of affirmative marks for each student. The percentage of affirmative marks for each student at each review was calculated by the formula *the number of "yes" marks for each student divided by the total number of items minus the number of "not*

*applicable" marks for the student* (i.e., number of yes/32 – number of not applicable). This number was multiplied by 100 to obtain a percentage for each student.

Because the same students' IEPs were examined for both the initial and the follow-up review, the two sets of data are correlated. Therefore, a more powerful research design could be used for data analysis than if the data consisted of randomly assigned groups without pairing (Glass & Hopkins, 1996; Green et al., 2000). Thus, a paired *t* test was conducted to determine whether the mean difference between the percentage of affirmative marks at the initial and follow-up reviews, across all items differed significantly from zero.

To investigate whether the effects of the intervention varied by disability category, an analysis of variance was conducted using a 4 X 2 randomized factorial design (Fink, 1995; Morgan, Reichert, & Harrison, 2002). The students were divided into four disability categories: (1) Learning Disability; (2) Emotional Impairment; (3) Mental Impairments, consisting of Mental Impairments and Severe Multiple Impairments; and (4) other exceptionalities encompassing Visual Impairment, Physical or Otherwise Health Impairment, Autistic, Severe Language Impairment, and Hearing Impairment. This analysis tested the null hypothesis that the mean percentages of affirmative marks for students in the four disabilities categories were equal at the initial and follow-up review. The independent variable was the student's disability category; the dependent variable was the percentage of affirmative marks at the initial and follow-up reviews.

To test the effects of region, an analysis of variance was conducted using an 8 X 2 randomized factorial design (Glass & Hopkins, 1996; Morgan et al., 2002). This analysis tested the null hypothesis that the mean percentages of affirmative marks in each region

were equal at the initial and the follow-up review. The independent variable was the region; the dependent variable was the percentage of affirmative marks at the initial and follow-up reviews.

Finally, the items on the checklist were grouped into three broad categories: (1) participants in the IEP meeting, (2) invitation, and (3) content of the IEP. These categories correspond with the three general areas of IDEA 1997 represented by the items on the checklist (O'Leary et al., 2001; Storms et al., 2000). The items unique to the *Michigan Transition Requirements Checklist* that queried whether the IEP identified the student's desired post-school outcomes/visions in the area of education/training, employment, community participation, and independent living were categorized as "content of the IEP." The percentage of affirmative marks for each group of items was calculated per student. Subsequently, the mean percentage of affirmative marks was calculated by item category. To investigate the main effects for the initial and follow-up review and the main effects of the three broad categories, a two-way within analysis of variance was completed (Glass & Hopkins, 1996). This type of analysis of ANOVA was used because it assumes that a student's performance in one category is not independent of his or her performance in another category. The within factors are the broad categories with three levels (participants in the IEP meeting, invitation, and content of the IEP), and time with two levels (initial and follow-up review). The dependent variable was the percentage of affirmative marks.

*Observed and Expected Frequency*

To further investigate the concept of "improved compliance," a second analysis was completed. That is, a chi-square goodness-of-fit test was conducted to investigate the relationship between the expected and the obtained frequencies of affirmative marks for each individual checklist item. In this analysis, the "not applicable" scores for a specific student were considered "yes" or "in compliance." During the reviews, the "not applicable" score was used to indicate an item that did not apply to the student because of age or student need. In such cases, the student's IEP form was judged to be in compliance with regard to IDEA 1997 transition requirements.

This analysis provides information different from that yielded by the analysis of differences of the mean percentage of affirmative marks at the initial and follow-up review. Specifically, an analysis of the overall percentage of affirmative marks provides limited information on how an item's status may have changed or remained the same at initial and follow-up review. In this case, the chi-square goodness-of-fit analysis considers the relationship between an item's status at the initial and follow-up review rather than simply considering the overall number of affirmative marks.

If the model had no effect, it would be assumed that the observed frequencies of "yes" marks for each item would be the same in the initial review and the follow-up review (Fraenkel & Wallen, 1993; Glass & Hopkins, 1996). In contrast, significant difference between the expected and obtained frequencies of affirmative marks for an item would suggest that compliance regarding a specific item was affected (Fraenkel & Wallen, 1993).

The chi-square goodness-of-fit test used the "yes" and "no" scores for each student at the initial and follow-up review for each item. A student's item score at the follow-up review was considered the observed frequency; the student's item score at the initial review was considered the expected frequency. For each item, this analysis tested the null hypothesis that the observed frequency of students' "yes" marks was the same as the expected frequency (Glass & Hopkins, 1996). Item 10 ("Does the parent notice indicate that one of the purposes of the meeting will be the development of a statement of transition services needs?"), and Item 11 ("For a student beginning at age 14, does the parent notice indicate that one of the purposes of the meeting will be the development of a statement of transition services needs and for a student beginning at age 16, a statement of needed transitions services?") were collapsed for this analysis since a student would either qualify for one or the other item. The chi-square goodness-of-fit test was not conducted across all items, disability category, or student's region because of this test's tendency to inflate the degrees of freedom.

*Compliance Change Score*

A third series of analyses was completed to further investigate the concept of "improved compliance." These analyses differed from the chi-square goodness-of-fit test because they focused on investigating bi-directional change of item scores. The chi-square test is non-directional as it tests the observed frequency versus some known standard. The test does not detect the direction of a miss-fit, only whether it exists or not (Glass & Hopkins, 1996). This next series of analyses attempted to investigate actual improvement or decrease in compliance.

Four categories representing compliance change were created: (1) items scored "yes" on the initial review and "yes" on the follow-up review ("yes/yes"); (2) items scored "no" on the initial review and "no" on the follow-up review ("no/no"); (3) items scored "yes" on the initial review and "no" on the follow-up review ("yes/no"); and (4) items scored "no" on the initial review and "yes" on the follow-up review ("no/yes"). "Yes/yes" and "no/no" scores illustrate no change in compliance. The "yes/no" scores represent a decrease in compliance, and "no/yes" scores represent an increase in compliance. The total scores in each category were calculated for each student in two ways: (1) across all items and (2) by groups of items representing the IEP content areas described previously.

Subsequently, a new variable was created called "compliance change score." To obtain this variable for each student, a score was tallied for each individual using the formula, *the number of items marked "no/yes" minus the number of items marked "yes/no."* This "compliance change score" represents the net improvement or decline in compliance on each student's IEP. A total of four scores was calculated for each student (1) the overall score across all items, (2) score for items in the category "participants in the IEP meeting," (3) score for the items in "invitation" category, and (4) score for the items in the category "content of the IEP."

Using the overall "compliance change score," a two-tailed *t* test was conducted to test the null hypothesis that the mean "compliance change score" across all items was equal to zero. To investigate if the mean "compliance change score" differed among disability categories, an analysis of variance was conducted using disability category (as previously described) as the independent variable (Fink, 1995; Morgan et al., 2002). The

ANOVA tested the null hypothesis that the mean "compliance change scores" for students in each disability category were equal.

Next, to determine the effects of location, an analysis of variance tested the null hypothesis that the mean "compliance change scores" for students in each of the eight regions were equal (Glass & Hopkins, 1996; Morgan et al., 2002). The independent variable was the regions, and the dependent variable was the student's "compliance change score."

Finally, using "compliance change score" in each of the three content categories (participants in the IEP meeting, invitation, and content of the IEP), a one-way within-subjects analysis of variance was conducted to test the null hypothesis that the mean "compliance change score" of each category was equal (Glass & Hopkins, 1996; Morgan et al., 2002). In this analysis, the within-subjects factor was item category and the dependent variable was the "compliance change score."

## Part 2: Implementation of the Model According to Key Contact Personnel

The second part of the study was designed to tap into participants' perceptions of the Michigan Transition Outcomes Project as well as the procedures that were executed during implementation of the model. Qualitative methods were employed to gather this information. Specifically, after completion of the Michigan Transition Outcomes Project, participants were interviewed about their impressions with regard to (a) impact of the model on the transition planning process, (b) results achieved, (c) identification of the strategies that were implemented, and (d) strengths and limitations of the model.

*Participants*

An elite interview, or interviewing individuals considered to be influential and well informed based on their expertise in the model relevant to the research, was conducted (Marshall & Rossman, 1999; Patton, 1987). Thus, the sampling was purposive rather than random in nature (Miles & Huberman, 1994). According to Patton (1990), in-depth information gathered through qualitative research from a small sample size can be valuable. Marshall (1985) concurred, stating that the use of qualitative methods is well suited for some types of research.

Information was gathered from people who had vast knowledge about the Michigan Transition Outcomes Project (Johnson & Christensen, 2004). This type of interviewing has many advantages, including (a) the information can be very valuable because of the position the participants hold in the administrative realm with regard to the model; (b) the interviews can provide an overall view of the model; and (c) the selected people are more likely than other participants to be familiar with the structures of the model (Marshall & Rossman, 1999). These key informants can be especially sensitive to the area of concerns with regards to the model as well as acting as guides and interpreters while providing a historical narrative of the process (Burgess, 1985).

The Transition Services Project of Michigan provided the researchers with the telephone numbers and addresses of each of the key contact personnel or elite personnel (see Appendix D). The individuals were recommended because they worked with the model throughout the process and had knowledge of the region's procedures. The key contact person was the coordinator or pilot site contact person for each region who communicated with both the personnel from the Transition Services Project of Michigan and

the individuals in the region. In one case, where the key contact personnel was not available due to job changes out of the region, the Transition Services Project of Michigan provided another name of a contact person who worked with the model in this district, and this person was subsequently interviewed.

*Instrumentation*

An open-ended interview technique was used. The exact wording and sequence of questions were determined in advanced (see Appendix E) and used consistently throughout the interviews. Thus, all the interviewees were asked the same questions in the same order. This type of interview increases the comparability of responses; also, the data are complete for each person on the topics addressed in the interview (Patton, 1990). Berg (2004) reports that qualitative telephone interviews are likely to be beneficial when the researcher has fairly specific questions in mind. Each telephone interview was conducted at a time that was convenient for the key contact personnel. Finally, the interview was audio-taped to ensure reliability (Peräkylä, 1997; Seidman, 1998).

*Content of Interview*

Before the interview began, the interviewer stated the purpose of the interview, taking into account the research goals (see Appendix E). Efforts were made to ensure that the interview questions were clear, using terminology that educators and administrators would understand. All interviews were conducted by the same interviewer to eliminate as much bias as possible while making sure that the interview was given the same way to each participant. The interview focused on four topics: (1) the impact of the Michigan

Transition Outcomes Project on the region; (2) the outcomes that came about in each region as a result of participating in the model; (3) the strategies, practices, or procedures implemented during this model; and (4) the strengths and weaknesses of the Michigan Transition Outcomes Project.

*Interview Pilot*

Seidman (1998) urged that pilot interviews be performed on a small number of individuals because of the unanticipated turns the interviewing process can take and the complexities of the interviewing relationship. Three pilot interviews for the current study were completed with personnel from other states who had knowledge about and worked with the Transition Outcomes Project in their respective state.

The first pilot interview was conducted with a special education services coordinator who had implemented the Transition Services Project in his state. A second pilot interview was completed with the state coordinator of the Transition Outcomes Project in his state. A third pilot of the interview was performed with a transition coordinator who had implemented the Transition Outcomes Project in his school district and had a strong background as a transition coordinator. These individuals commented on the interview questions and provided feedback concerning the wording, timing, and information to be gathered. Based on their feedback, a revised interview was created, which was subsequently conducted with the eight key contact personnel from the regions in the state of Michigan that were involved in the Michigan Transition Outcomes Project.

*Procedures*

As mentioned, the Transition Services Project of Michigan provided the names and mailing addresses of the key contact personnel from the eight regions that were involved in the model. These key contact personnel were mailed a packet that included an invitation to participate, a consent form, and a self-addressed, stamped return envelope. The invitation also outlined the research project (see Appendix F). Participants were asked to indicate a time for the researcher to telephone and to return the signed consent form using the pre-paid stamped envelope (see Appendix F). Upon receiving the consent form, the interviewer contacted the participant at the designated time.

The key contact people were interviewed by the same person using the same interview questions (see Appendix E), thus providing sameness and a similar structure to each interview (Patton, 1987). The interview was audio-taped and notes were taken by the interviewer to provide reliability (Seidman, 1998). The audiotape contained the raw data, and once the interview session had been transcribed, the audiotape was destroyed.

*Data Analysis*

After reviewing the recorded interviews, the researcher transcribed the audiotapes and wrote down initial code categories in an effort to capture the interview material. Coding is defined through interaction with the data (Patton, 1990; Weiss, 1994). Weiss (1994) reported that by the end of the analysis phase, the investigator should note that the data are fit into already established codes.

A second copy of the transcripts was made, and each interview was coded with a unique color so the researcher could easily establish from which interview the information originated. The first copy was reserved as an archive. The second was divided into topical units corresponding to the labels placed on file folders. The result was a set of folders that contained excerpts from the interview in special categories. The collection of file folders was then organized into a coherent sequence. The cutting and sorting into file folders is the traditional approach to qualitative analysis to organize categories, themes, and patterns but may also be done with computer software (Berg, 2004; Marshall & Rossman, 1999; Morris, Fitz-Gibbon, & Freeman, 1987). These categories along with specific responses from the key contact people are reported in the following chapter.

# CHAPTER 4

## RESULTS

This study investigated the effectiveness of the Michigan Transition Outcomes Project in improving compliance with IDEA 1997 transition requirements in IEPs of students with disabilities, as well as the perceptions of the key contact people who have implemented this model and its impact on the transition planning process for students with disabilities.

The results are presented in the following sequence: Part 1 focuses on the quantitative analyses of the initial and follow-up reviews of the IEPs of the selected students with disabilities. First, demographic information is presented that describes the students whose IEPs were reviewed. Next, the results of a series of analyses regarding compliance with the IDEA 1997 transition requirements are described, followed by the results of analyses investigating the relationship of student disability variables, location variables, and of IEP content area variables. Part 2 presents the perceptions of the key contact personnel in participating regions regarding the outcomes of the model, the strategies, procedures, and policies implemented during the model, and the perceived strengths and limitations of the model.

## Part 1: Improvement of Compliance

### *Subjects*

The subjects for this study were students with disabilities attending schools in eight regions in Michigan; data were gathered from these students' IEPs by Technical Assistants from the Transition Services Project of Michigan who reviewed the students' IEPs using the *Michigan Transition Requirements Checklist* (see Appendix A). The initial sample consisted of the IEP forms of 291 students with disabilities selected randomly. During the follow-up review, the IEPs of 183 students with disabilities were examined. Differences in the number of students whose IEPs were evaluated at the two reviews were caused by circumstances such as students moving out of district, graduation, and dropping out of school. Of the remaining 183 students, 17 were not part of the initial review, and therefore not included in the study. As a result, the final number of subjects was 166 students, representing a rate of 57% of the students whose IEPs were included in the initial review.

### *Age of Students*

The age of the 166 students whose IEPs were examined was between 12 and 19 years old at the initial review, with a mean age of 14.6 years old. Thirty percent of these students were 14 years old, while less than 1% of the subjects were 18 and 19 years old. At the follow-up review, the students' age ranged between 14 and 20 years, with a mean of 16.5 years old. Sixteen-year-olds comprised the highest percentage of the sample (28.3%); while the 20-year-olds comprised the lowest percentage (1.2%) (see Table 1).

Table 1

Frequency and Percentage of Students in Age Groups

| | Initial Review | | Follow-Up Review | |
|---|---|---|---|---|
| Age | *f* | % | *f* | % |
| 12 | 5 | 3.0 | 0 | 0.0 |
| 13 | 27 | 16.3 | 0 | 0.0 |
| 14 | 51 | 30.7 | 4 | 2.4 |
| 15 | 42 | 25.3 | 33 | 19.9 |
| 16 | 31 | 18.7 | 47 | 28.3 |
| 17 | 8 | 4.8 | 41 | 24.7 |
| 18 | 1 | 0.6 | 34 | 20.5 |
| 19 | 1 | 0.6 | 5 | 3.0 |
| 20 | 0 | 0.0 | 2 | 1.2 |
| Total | 166 | 100.0 | 166 | 100.0 |

*Disability Categories*

All the students whose IEPs were reviewed were classified in one of the state's mandated disability categories as described in the *State of Michigan Rules and Regulations for Special Education* (see Table 2). To test whether the proportion of students in individual disability categories in this study differed significantly from the expected proportions of students with disabilities in the state of Michigan (Michigan Special Education Statistics, 2002), a chi-square goodness-of-fit test was performed (Wiersma & Jurs, 2004). No significant differences were found between the reported state proportions of disability categories and the disability categories proportions of the students whose IEPs were reviewed for this study, $\chi^2(5, N = 166) = 5.02, p = .413$.

Table 2

Disability Category of Students in Study ($N$ = 166)

| Disability Category | $f$ | % |
|---|---|---|
| Learning Disability | 97 | 58.4 |
| Mental Impairment | 30 | 18.1 |
| Emotional Impairment | 14 | 8.4 |
| Physical or Otherwise Health Impairment | 11 | 6.6 |
| Speech or Language Impairment | 5 | 3.0 |
| Visual Impairment | 4 | 2.4 |
| Autistic | 3 | 1.8 |
| Hearing Impairment | 1 | 0.6 |
| Severe Multiple Impairment | 1 | 0.6 |
| Total | 166 | 100.0 |

The highest percentage of students whose IEPs were included in this study had a label of Learning Disabilities (58.4%), while the lowest percentage of students had labels of Hearing Impairment (0.6%) and Severe Multiple Impairment (0.6%). The percentage of each disability category of the students whose IEPs were reviewed for this study generally reflected that typically reported in special education enrollment data (U.S. Department of Education, 2000).

*Number of IEPs for Regions*

Each region varied in the number of students whose IEPs were reviewed at the initial and the follow-up reviews (see Table 3). Of the 166 students whose IEPs were included in the study, the number of students from each region ranged from 7 to 30, with a mean of 20.8. Most students whose IEPs were reviewed were from Region 7 with 18%

($n$ = 30) of the total sample. Region 3 had the least number of students whose IEPs were reviewed ($n$ = 7) with 4.2% of the total. Because of the differences in student population in each region, the number of IEPs reviewed varied in each region. To test whether the proportion of students whose IEPs were reviewed for each region differed significantly from the expected proportions, a chi-square goodness-of-fit test was performed (Glass & Hopkins, 1996). No significant differences were found in the proportion between the students' IEP reviewed for this study and the expected proportion of students' IEPs reviewed for each region, $\chi^2(7, N = 166) = 10.07, p = .15$.

Table 3

Frequency and Percentage of the Total Sample of IEPs Selected in Each Region at Initial and Follow-Up Review

| | Initial Review | | Follow-Up Review | |
|---|---|---|---|---|
| Region | *f* | % | *f* | % |
| 1 | 27 | 9.3 | 14 | 8.4 |
| 2 | 23 | 7.9 | 20 | 12.0 |
| 3 | 19 | 6.5 | 7 | 4.2 |
| 4 | 42 | 14.4 | 24 | 14.5 |
| 5 | 30 | 10.3 | 27 | 16.3 |
| 6 | 60 | 20.6 | 29 | 17.5 |
| 7 | 60 | 20.6 | 30 | 18.1 |
| 8 | 30 | 10.3 | 15 | 9.0 |
| Total | 291 | 100.0 | 166 | 100.0 |

*Note.* A 10% sample of the special education students whose ages ranged from 14-24 years, and younger if the student's IEP addressed transition, was selected in each region for the initial review.

*Research Question #1*

This research question investigated compliance using three different indicators: (1) percentage of affirmative marks, (2) observed and expected frequencies of affirmative marks, and (3) "compliance change score." Results for each of these three indicators are presented below with regard to the questions whether the effects of the Michigan Transition Outcomes Project improved compliance as shown across all items in the IEPs of students with disabilities, by student's disability category, by individual region, and by content area of the item.

*Research Question 1-1*

This research question focused on the effects of the Michigan Transition Outcomes Project on compliance of the transition items in students' IEPs.

*Frequency and percentage of affirmative marks.* Each student's affirmative marks were tallied. Table 4 shows the frequency and percentage of affirmative marks by checklist item at the initial and follow-up reviews. For some items, the age of the student affected whether an item was marked "not applicable," "yes," or "no." In other cases, items may have been considered as not necessary for a student, and thus marked "not applicable." Therefore, as represented in Table 4, the number of students for whom the percentage of affirmative marks was calculated varies by item. Such items included Item 8 ("Does the parent notice indicate that the public agency will invite the student?"); Items 10 and 11 ("Does the parent notice indicate that one of the purposes of the meeting will be the development of (a) a statement of transition services needs and for a student

Table 4

Frequency and Percentage of Affirmative Marks at Initial and Follow-Up Reviews ($N = 166$)

| *Michigan Transition Requirements Checklist* Question | Question # | Item # | Category | Initial | | | Follow-Up | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | *n* | *f* | % | *n* | *f* | % |
| Student's desired post-school vision in regards to education/ training appears on the IEPT report | 1a | 1 | C | 166 | 30 | 18.1 | 166 | 119 | 71.7 |
| Student's desired post-school vision in regards to employment appears on the IEPT report | 1b | 2 | C | 166 | 30 | 18.1 | 166 | 130 | 78.3 |
| Student's desired post-school vision in regards to community participation appears on the IEPT report | 1c | 3 | C | 166 | 14 | 8.4 | 166 | 113 | 68.1 |
| Student's desired post-school vision in regards to independent living appears on the IEPT report | 1d | 4 | C | 166 | 16 | 9.6 | 166 | 110 | 66.3 |
| Public agency invites the student | 2 | 5 | P | 166 | 122 | 73.5 | 166 | 155 | 93.4 |
| Student attends the IEPT meeting | 3 | 6 | P | 166 | 108 | 65.1 | 166 | 142 | 85.5 |
| Public agency ensures student's preference in IEPT report | 4 | 7 | P | 166 | 94 | 56.6 | 166 | 155 | 93.4 |
| Public agency invites agency likely to provide or pay for services | 5 | 8 | P | 83 | 8 | 9.6 | 162 | 68 | 42.0 |
| Parent notice/invitation provided | 6 | 9 | I | 166 | 141 | 84.9 | 166 | 156 | 94.0 |
| For those students beginning at age 14, did parent notice indicate that one purpose of meeting will be development of the statement of transition services needs | 7a | 10 | I | 82 | 4 | 4.9 | 4 | 4 | 100.0 |
| For those students beginning at age 16, did the parent notice indicate one purpose of the meeting will be the development of the statement of transition services needs and statement of needed transition services | 7b | 11 | I | 84 | 3 | 3.6 | 162 | 46 | 28.4 |

Table 4—continued

| *Michigan Transition Requirements Checklist* Question | Question # | Item # | Category | Initial | | | Follow-Up | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | *n* | *f* | % | *n* | *f* | % |
| Parent notice indicates that public agency will invite student | 8 | 12 | I | 166 | 59 | 35.5 | 166 | 129 | 77.7 |
| Parent notice includes the date | 9a | 13 | I | 166 | 123 | 74.1 | 166 | 147 | 88.6 |
| Parent notice includes the time | 9b | 14 | I | 166 | 124 | 74.7 | 166 | 147 | 88.6 |
| Parent notice includes the location | 9c | 15 | I | 166 | 123 | 74.1 | 166 | 147 | 88.6 |
| Parent notice includes who will be invited | 9d | 16 | I | 166 | 123 | 74.1 | 166 | 147 | 88.6 |
| Parent notice indicates that parents may invite others | 10 | 17 | I | 166 | 102 | 61.4 | 166 | 147 | 88.6 |
| Present level of education performance for education/ training related to student's post-school education/ training outcomes/visions | 11a | 18 | C | 166 | 31 | 18.7 | 166 | 73 | 44.0 |
| Present level of education performance for employment to student's post-school employment outcomes/visions | 11b | 19 | C | 166 | 18 | 10.8 | 166 | 73 | 44.0 |
| Present level of education performance for community participation to student's post-school community participation outcomes/visions | 11c | 20 | C | 166 | 7 | 4.2 | 166 | 72 | 43.4 |
| Present level of education performance for independent living to student's post-school independent living outcomes/visions | 11d | 21 | C | 166 | 9 | 5.4 | 166 | 66 | 39.8 |
| Transition services needs included in IEP at age 14 and older | 12 | 22 | C | 166 | 79 | 47.6 | 166 | 95 | 57.2 |
| Statement of needed transition services included at age 16 and older (younger if appropriate) | 13 | 23 | C | 93 | 66 | 71.0 | 162 | 152 | 93.8 |
| Statement of needed transition services considers instruction for students 16 years of age or older (younger if appropriate) | 14a | 24 | C | 93 | 75 | 80.6 | 162 | 148 | 91.4 |

Table 4—continued

| *Michigan Transition Requirements Checklist* Question | Question # | Item # | Category | Initial | | | Follow-Up | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | *n* | *f* | % | *n* | *f* | % |
| Statement of needed transition services considers related services for students 16 years of age or older (younger if appropriate) | 14b | 25 | C | 93 | 62 | 66.7 | 162 | 137 | 84.6 |
| Statement of needed transition services considers community experiences for students 16 years of age or older (younger if appropriate) | 14c | 26 | C | 93 | 75 | 80.6 | 162 | 142 | 87.7 |
| Statement of needed transition services considers employment/living for students 16 years of age or older (younger if appropriate) | 14d | 27 | C | 93 | 74 | 79.6 | 162 | 144 | 88.9 |
| Statement of needed transition services considers daily living skills for students 16 years of age or older (younger if appropriate) | 14e | 28 | C | 93 | 72 | 77.4 | 162 | 143 | 88.3 |
| Statement of needed transition services considers a functional vocational evaluation for students 16 years of age or older (younger if appropriate) | 14f | 29 | C | 93 | 56 | 60.2 | 162 | 108 | 66.7 |
| Coordinated set of activities noted for students 16 years of age or older (younger if appropriate) | 15 | 30 | C | 93 | 31 | 33.3 | 162 | 109 | 67.3 |
| Coordinated set of activities led to post-school outcomes for students 16 years of age or older (younger if appropriate) | 16 | 31 | C | 93 | 11 | 11.8 | 158 | 99 | 61.1 |
| Statement of transition services needs and for those students 16 years or older needed transition services reviewed at least annually | 17 | 32 | C | 166 | 141 | 84.9 | 166 | 144 | 86.7 |

*Note:* The items were categorized as follows: P = *Participants in the IEP Meeting*; I = *Invitation*; C = *Content of IEP*. The number of IEPs (*n*) at Initial and Follow-up reviews for which particular items were applicable varied based on the age of the student.

beginning at age 16 (b) a statement of needed transition services," respectively); Item 23 ("Does the IEP include a statement of needed transition services?"); Items 24, 25, 26, 27, 28, and 29 ("Does the statement of needed transition services consider instruction, related services, community experiences, development of employment and other post-school living objectives, daily living skills, and a functional vocational evaluation?"); and Item 30 ("Are the activities in the statement of needed transition services presented as a 'co-ordinated set of activities'?").

Comparisons of students' scores at the initial review and follow-up review indicated that frequency and percentage of affirmative marks increased for each item. Item 32 ("Is the statement of transition service needs and, for students 16 years of age or older, the statement of needed transition services reviewed at least annually?") received the highest percentage of students' affirmative marks in the initial review with 84.9% ($n$ = 141). Item 11 ("For a student beginning at age 16, does the parent notice indicate that one of the purposes of the meeting will be the development of (a) a statement of transition service needs and (b) statement of needed transition services?") had the lowest percent of students' affirmative marks at the initial review with 3.6% ($n$ = 3). In the follow-up review, the highest percentage of students' affirmative marks was for Item 10 ("For the student beginning at age 14, does the parent notice indicate that one of the purposes of the meeting will be the development of a statement of transition service needs?"), with 100%. Due to of the applicable age of the students whose IEPs were being examined for the follow-up review, this item only applied to only 4 out of the 166 students; therefore, for those 4 students, this item was completed correctly in the IEP. For 94% of the students and for 93.8% of the students, Item 9 ("For students of any age, was parent notice

provided?") ($n$ = 156), and Item 23 ("Does the IEP include a statement of needed transition services?") ($n$ = 152) respectively, were marked affirmatively. The lowest percentage of students' affirmative marks for the follow-up review was 28% for Item 11 ("For a student beginning at age 16, does the parent notice indicate that one of the purposes of the meeting will be the development of (a) a statement of transition service needs and (b) statement of needed transition services?").

The smallest change in the percentage of students' affirmative marks between the initial review (84.9%) and follow-up review (86.7%) was found for Item 32 ("Is the statement of transition services needs, and for students 16 years or older, the statement of needed transition services reviewed at least annually?") whereas, the greatest change in the students' affirmative marks between the initial review (4.9%) and the follow-up review (100%) was for Item 10 ("Does the parent notice indicate that one of the purposes of the meeting will be the development of a statement of transition services needs for a student beginning at age 14?"). Item 2 ("Are the student's desired post-school outcomes/ visions in the area of employment clearly identifiable from information appearing on his/her IEP report?") also showed great change in the percentage of students' affirmative marks from the initial review (18.1%) to the follow-up review (78.3%). In summary, all items from the checklist showed improvement in terms of the frequency and percentage of the students' affirmative marks from the initial to the follow-up review.

The results of the paired sample $t$ test revealed that the mean difference between the percentage of affirmative marks from initial student IEP review to follow-up student IEP review was significantly different from zero, $t$ (165) = 13.62, $p < .001$. The mean

percentage of affirmative marks on the *Michigan Transition Requirements Checklist* increased significantly from the initial review ($M = 45$) to the follow-up review ($M = 74$).

*Observed and expected frequencies of affirmative marks.* This analysis investigated whether the observed frequency of affirmative marks of each item in the follow-up review differed significantly from those in the initial review. Results of the chi-square goodness-of-fit test indicated that for 20 out of 31 items (65%) there was a significant difference between the expected frequency (initial review) and observed frequency (follow-up review) (see Table 5). No difference was found for 11 of 31 items (35%).

The item that illustrated the greatest increase in frequency of affirmative marks between initial and follow-up reviews was Item 3 ("Are the student's desired post-school vision in regards to community participation clearly identifiable from the information appearing on his/her IEP report?"). Other items that increased in frequency included Item 4 ("Are the student's desired post-school vision with regard to independent living clearly identifiable from the information appearing on his/her IEP report?"), and Item 12 ("Does the parent notice indicate that the public agency will invite the student?"). The items that demonstrated a decrease in the frequency of affirmative marks when comparing what was expected and what was observed included Item 8 ("Did the public agency invite a representative of any other agency that is likely to be responsible for providing or paying for transition services?") and Items 26 and 29 ("Does the statement of needed transition services consider community experiences and a functional vocational evaluation?" respectively).

*Compliance change score.* To further investigate change in compliance, the students' score for each item at the initial and follow-up reviews were categorized as

Table 5

Results of a Chi-Square Goodness-of-Fit Test of Observed and Expected Frequencies of Affirmative Marks by Item ($N = 166$)

| *Michigan Transition Requirements Checklist* Question | Question # | Item # | Observed *f* | Expected *f* | $\chi^2$ |
|---|---|---|---|---|---|
| Student's desired post-school vision in regards to education/training appears on the IEPT report | 1a | 1 | 119 | 30 | 322.276* |
| Student's desired post-school vision in regards to employment appears on the IEPT report | 1b | 2 | 130 | 30 | 406.863* |
| Student's desired post-school vision in regards to community participation appears on the IEPT report | 1c | 3 | 113 | 14 | 764.552* |
| Student's desired post-school vision in regards to independent living appears on the IEPT report | 1d | 4 | 110 | 16 | 611.157* |
| Public agency invites the student | 2 | 5 | 155 | 122 | 33.676* |
| Student attends the IEPT meeting | 3 | 6 | 142 | 108 | 30.635* |
| Public agency ensures student's preference in IEPT report | 4 | 7 | 155 | 94 | 91.266* |
| Public agency invites agency likely to provide or pay for services | 5 | 8 | 72 | 91 | 8.780 |
| Parent notice/invitation provided | 6 | 9 | 156 | 141 | 10.596* |
| For those students beginning at age 14, did parent notice indicate that one purpose of meeting will be development of the statement of transition services needs and for those students beginning at age 16, did the parent notice indicate one purpose of the meeting will be the development of the statement of transition services needs and statement of needed transition services | 7a, 7b | 10, 11 | 50 | 7 | 275.772* |
| Parent notice indicates that public agency will invite student | 8 | 12 | 129 | 59 | 128.845* |
| Parent notice includes the date | 9a | 13 | 147 | 123 | 18.078* |
| Parent notice includes the time | 9b | 14 | 147 | 124 | 16.861* |

Table 5—continued

| *Michigan Transition Requirements Checklist* Question | Question # | Item # | Observed *f* | Expected *f* | $\chi^2$ |
|---|---|---|---|---|---|
| Parent notice includes the location | 9c | 15 | 147 | 123 | 18.080* |
| Parent notice includes who will be invited | 9d | 16 | 147 | 123 | 18.078* |
| Parent notice indicates that parents may invite others | 10 | 17 | 147 | 102 | 51.494* |
| Present level of education performance for education/training related to student's post-school education/training outcomes/visions | 11a | 18 | 73 | 31 | 69.970* |
| Present level of education performance for employment to student's post-school employment outcomes/visions | 11b | 19 | 73 | 18 | 188.495* |
| Present level of education performance for community participation to student's post-school community participation outcomes/visions | 11c | 20 | 72 | 7 | 630.144* |
| Present level of education performance for independent living to student's post-school independent living outcomes/visions | 11d | 21 | 66 | 9 | 381.694* |
| Transition services needs included in IEP at age 14 and older | 12 | 22 | 95 | 79 | 6.183 |
| Statement of needed transition services included at age 16 and older (younger if appropriate) | 13 | 23 | 156 | 139 | 12.783* |
| Statement of needed transition services considers instruction for students 16 years of age or older (younger if appropriate) | 14a | 24 | 152 | 148 | .997 |
| Statement of needed transition services considers related services for students 16 years of age or older (younger if appropriate) | 14b | 25 | 141 | 135 | 1.428 |
| Statement of needed transition services considers community experiences for students 16 years of age or older (younger if appropriate) | 14c | 26 | 146 | 148 | .249 |
| Statement of needed transition services considers employment for students 16 years of age or older (younger if appropriate) | 14d | 27 | 148 | 147 | .059 |
| Statement of needed transition services considers daily living skills for students 16 years of age or older (younger if appropriate) | 14e | 28 | 147 | 145 | .218 |

Table 5—continued

| *Michigan Transition Requirements Checklist* Question | Question # | Item # | Observed *f* | Expected *f* | $\chi^2$ |
|---|---|---|---|---|---|
| Statement of needed transition services considers a functional vocational evaluation for students 16 years of age or older (younger if appropriate) | 14f | 29 | 112 | 129 | 10.051 |
| Coordinated set of activities noted for students 16 years of age or older (younger if appropriate) | 15 | 30 | 113 | 104 | 2.085 |
| Coordinated set of activities led to post-school outcomes for students 16 years of age or older (younger if appropriate) | 16 | 31 | 103 | 84 | 8.700 |
| Statement of transition services needs and for those students 16 years or older needed transition services reviewed at least annually | 17 | 32 | 144 | 141 | .424 |

*Note:* The "observed" frequencies are the affirmative marks at the follow-up review; the "expected" frequencies are affirmative marks at the initial review; * $p < .002$.

"yes/yes," "no/no," "yes/no," and "no/yes." Figure 1 presents the distribution of scores in the categories. Table 6 presents the category distribution by item.

As illustrated, the greatest distributions of scores were in the "yes/yes" category, 18 out of 31 items (58.0%). The item with the highest frequency of "yes/yes" scores was Item 24 ("Does the statement of needed transition services consider instruction?"). Of the 166 IEPs in the sample, this item was scored affirmatively at the initial and follow-up review for 136 students (81.9%). Related items that queried whether the statement of needed transition services considered instruction, related services, community experience, development of employment and other post-school living objectives, daily living skills, and a functional vocational evaluation (Items 24-29) were also scored "yes/yes" for a majority of students (see Table 6).

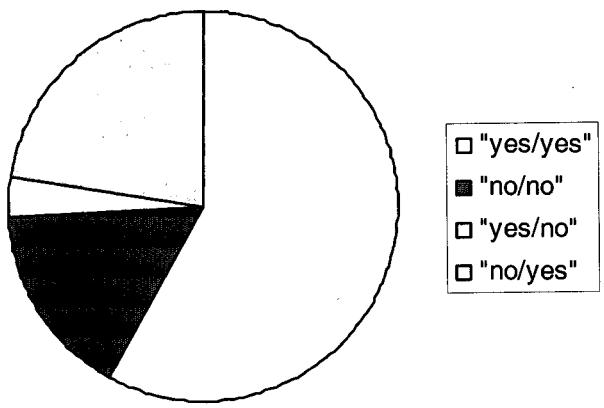


*Figure 1.* Frequency Distribution of Scores by Compliance Change Categories.

For 5 of 31 items (16.1%), the greatest distributions of scores were in the "no/no" category. For over two-thirds of the students, the parent notice regarding the purpose of the meeting did not comply with the IDEA 1997 requirements at the initial and follow-up

Table 6

Students' Change Score by Item ($N = 166$)

| Checklist Question | Question # | Item # | Content Category | Initial and Follow-up Score Category: Yes/Yes *f* | Yes/Yes % | No/No *f* | No/No % | Yes/No *f* | Yes/No % | No/Yes *f* | No/Yes % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Student's desired post-school vision in regards to education/training appears on the IEPT report | 1a | 1 | C | 21 | 12.7 | 38 | 22.9 | 9 | 5.4 | 98 | 59.0 |
| Student's desired post-school vision in regards to employment appears on the IEPT report | 1b | 2 | C | 23 | 13.9 | 29 | 17.5 | 7 | 4.2 | 107 | 64.5 |
| Student's desired post-school vision in regards to community participation appears on the IEPT report | 1c | 3 | C | 8 | 4.8 | 47 | 28.3 | 6 | 3.6 | 105 | 63.3 |
| Student's desired post-school vision in regards to independent living appears on the IEPT report | 1d | 4 | C | 11 | 6.6 | 51 | 30.7 | 5 | 3.0 | 99 | 59.6 |
| Public agency invites the student | 2 | 5 | P | 117 | 70.5 | 6 | 3.6 | 5 | 3.0 | 38 | 22.9 |
| Student attends the IEPT meeting | 3 | 6 | P | 101 | 60.8 | 17 | 10.2 | 7 | 4.2 | 41 | 24.7 |
| Public agency ensures student's preference in IEPT report | 4 | 7 | P | 89 | 53.6 | 6 | 3.6 | 5 | 3.0 | 66 | 39.8 |
| Public agency invites agency likely to provide or pay for services | 5 | 8 | P | 33 | 19.9 | 36 | 21.7 | 58 | 34.9 | 39 | 23.5 |
| Parent notice/invitation provided | 6 | 9 | I | 132 | 79.5 | 1 | 0.6 | 9 | 5.4 | 24 | 14.5 |
| For those students beginning at age 14, did parent notice indicate that one purpose of meeting will be development of the statement of transition services needs (7a) or for those students beginning at age 16, did the parent notice indicate one purpose of the meeting will be the development of the statement of transition services needs and statement of needed transition services (7b) | 7a, 7b | 10, 11 | I | 2 | 1.2 | 111 | 68.9 | 5 | 3.0 | 48 | 28.9 |

Table 6—continued

| Checklist Question | Question # | Item # | Content Category | Initial and Follow-up Score Category | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Yes/Yes | | No/No | | Yes/No | | No/Yes | |
| | | | | *f* | % | *f* | % | *f* | % | *f* | % |
| Parent notice indicates that public agency will invite student | 8 | 12 | I | 55 | 33.1 | 33 | 19.9 | 4 | 2.4 | 74 | 44.6 |
| Parent notice includes the date | 9a | 13 | I | 114 | 68.7 | 10 | 6.0 | 9 | 5.4 | 33 | 19.9 |
| Parent notice includes the time | 9b | 14 | I | 115 | 69.3 | 10 | 6.0 | 9 | 5.4 | 32 | 19.3 |
| Parent notice includes the location | 9c | 15 | I | 115 | 69.3 | 11 | 6.6 | 8 | 4.8 | 32 | 19.3 |
| Parent notice includes who will be invited | 9d | 16 | I | 115 | 69.3 | 11 | 6.6 | 8 | 4.8 | 32 | 19.3 |
| Parent notice indicates that parents may invite others | 10 | 17 | I | 94 | 56.6 | 11 | 6.6 | 8 | 4.8 | 53 | 31.9 |
| Present level of education performance for education/ training related to student's post-school education/training outcomes/visions | 11a | 18 | C | 11 | 6.6 | 73 | 44.0 | 20 | 12.0 | 62 | 37.3 |
| Present level of education performance for employment to student's post-school employment outcomes/visions | 11b | 19 | C | 10 | 6.0 | 85 | 51.2 | 8 | 4.8 | 63 | 38.0 |
| Present level of education performance for community participation to student's post-school community participation outcomes/visions | 11c | 20 | C | 2 | 1.2 | 89 | 53.6 | 5 | 3.0 | 70 | 42.2 |
| Present level of education performance for independent living to student's post-school independent living outcomes/visions | 11d | 21 | C | 5 | 3.0 | 96 | 57.8 | 4 | 2.4 | 61 | 36.7 |
| Transition services needs included in IEP at age 14 and older | 12 | 22 | C | 41 | 24.7 | 33 | 19.9 | 38 | 22.9 | 54 | 32.5 |
| Statement of needed transition services included at age 16 and older (younger if appropriate) | 13 | 23 | C | 130 | 78.3 | 1 | 0.6 | 9 | 5.4 | 26 | 15.7 |

Table 6—continued

| Checklist Question | Question # | Item # | Content Category | Initial and Follow-up Score Category | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Yes/Yes | | No/No | | Yes/No | | No/Yes | |
| | | | | *f* | % | *f* | % | *f* | % | *f* | % |
| Statement of needed transition services considers instruction for students 16 years of age or older (younger if appropriate) | 14a | 24 | C | 136 | 81.9 | 2 | 1.2 | 12 | 7.2 | 16 | 9.6 |
| Statement of needed transition services considers related services for students 16 years of age or older (younger if appropriate) | 14b | 25 | C | 119 | 71.7 | 9 | 5.4 | 16 | 9.6 | 22 | 13.3 |
| Statement of needed transition services considers community experiences for students 16 years of age or older (younger if appropriate) | 14c | 26 | C | 132 | 79.5 | 4 | 2.4 | 16 | 9.6 | 14 | 8.4 |
| Statement of needed transition services considers employment/living for students 16 years of age or older (younger if appropriate) | 14d | 27 | C | 134 | 80.7 | 5 | 3.0 | 13 | 7.8 | 14 | 8.4 |
| Statement of needed transition services considers daily living skills for students 16 years of age or older (younger if appropriate) | 14e | 28 | C | 129 | 77.7 | 3 | 1.8 | 16 | 9.6 | 18 | 10.8 |
| Statement of needed transition services considers a functional vocational evaluation for students 16 years of age or older (younger if appropriate) | 14f | 29 | C | 88 | 53.0 | 13 | 7.8 | 41 | 24.7 | 24 | 14.5 |
| Coordinated set of activities noted for students 16 years of age or older (younger if appropriate) | 15 | 30 | C | 67 | 40.4 | 16 | 9.6 | 37 | 22.3 | 46 | 27.7 |
| Coordinated set of activities led to post-school outcomes for students 16 years of age or older (younger if appropriate) | 16 | 31 | C | 51 | 30.7 | 30 | 18.1 | 33 | 19.9 | 52 | 31.3 |
| Statement of transition services needs and for those students 16 years or older needed transition services reviewed at least annually | 17 | 32 | C | 127 | 76.5 | 8 | 4.8 | 14 | 8.4 | 17 | 10.2 |

Note: The items were categorized as follows: P = *Participants in the IEP Meeting*; I = *Invitation*; C = *Content of the IEP*.

reviews. In addition, the IEPs of over 50% of the students were not in compliance regarding the students' present level of educational performance (Items 18-21).

The greatest distributions of scores for 1 out of 31 items (3.2%) were in the "yes/no" category. For over one third of the students (34.9%), Item 8 ("Did the public agency invite a representative of any other agency that is likely to be responsible for providing or paying for transition services?") received the highest frequency.

For 7 of the 31 items (22.6%), the greatest distributions of initial/follow-up scores was in the "no/yes" category. The item with the highest frequency of "no/yes" scores ($n$ = 107) was Item 2 ("Are the student's desired post-school outcomes/visions in the area of employment clearly identifiable from information appearing on his/her IEP report?"). In addition, the items most frequently classified in the "no/yes" category were those relating to "students' desired post-school visions" (Items 1-4).

The initial/follow-up score categories of particular interest were the two that indicate directional change in compliance, the "yes/no" and the "no/yes" categories. The distribution of scores in these categories was used to compile a "compliance change score" for each student.

Results of the two-tailed one-sample $t$ test did not support the null hypothesis that the mean "compliance change score" across all students was equal to zero. The mean "compliance change score" of 6.24 ($SD$ = 7.57) was significantly different from zero, $t(165) = 10.63$, $p < .001$. The results indicated a net increase in compliance across all items.

*Research Question 1-2*

This question focused on whether the effects of the Michigan Transition Outcomes Project regarding compliance of the transition items in students' IEPs varied by disability label. For this series of analyses, the students were divided into four groups according to their disability: (1) Learning Disability; (2) Emotional Impairment; (3) Mental Impairment, consisting of students with Mental Impairments and Severe Multiple Impairments; and (4) other, including students classified as Visually Impaired, Physically or Otherwise Health Impaired, Autistic Impaired, Severe Language Impaired, and Hearing Impaired.

*Percentage of affirmative marks.* The first analysis investigated whether the mean percentage of affirmative marks varied by disability category. Results of the ANOVA indicated that there were no significant interaction effects between disability category and time, $F(3, 162) = 1.325$, $p = .268$. In contrast, the ANOVA revealed a significant change in the mean percentage of affirmative marks for the main effect of time, $F(1, 162) = 115.57$, $p < .001$. No significant difference was detected for the effect of disability category, $F(3,162) = .187$, $p = .905$. The initial and follow-up means and standard deviations for students' percentage of affirmative marks by disability category at the initial and follow-up review are presented in Table 7. It appears that disability category was not a factor with regard to improvements in the percentage of affirmative marks occurred.

*Compliance change score.* A one-way analysis of variance was conducted to test the null hypothesis that the mean "compliance change scores" for each of the four disability categories were equal. Results indicated no significant differences in the mean "compliance change score" across the four disability categories, $F(3, 162) = 1.24$, $p =$

.298. Thus, it appears that the net change in compliance did not vary significantly by disability category.

Table 7

Mean Percentage and Standard Deviation of Affirmative Marks by Disability Category During Initial and Follow-Up Reviews

| | Initial Review | | Follow-Up Review | |
|---|---|---|---|---|
| *Disability Category* | *M* | *SD* | *M* | *SD* |
| Learning Disability | 45.5 | 19.8 | 73.2 | 22.8 |
| Emotional Impairment | 47.2 | 14.8 | 67.8 | 18.3 |
| Mental Impairment | 45.3 | 19.3 | 76.0 | 17.3 |
| Other Exceptionalities | 39.6 | 24.3 | 76.6 | 17.4 |
| Total | 44.8 | 20.0 | 73.8 | 20.8 |

*Research Question 1-3*

This question focused on whether the effects of the Michigan Transition Outcomes Project regarding compliance varied by region.

*Percentage of affirmative marks.* The first analysis investigated whether the mean percentage of affirmative marks varied by region. Results of the ANOVA indicated a significant interaction between region and time, $F(7,158) = 19.55$, $p < .001$ (see Figure 2). Significant effects were also found for the variables of region ($F(1,158) = 288.16$, $p < .001$) and time ($F(7, 158) = 13.51$, $p < .001$).

Subsequently, to investigate differences among the regions, post-hoc analyses were conducted. Multiple testing was corrected using a Bonferroni method of multiple comparison, which yielded an alpha level of .006 compared to the overall experiment-

wide alpha of .05. The first post-hoc test contrasted the mean difference of the percentage of affirmative marks for the initial and follow-up reviews using pairwise comparisons between the regions. The results indicated that Region 8 showed significant differences when matched against the other regions.

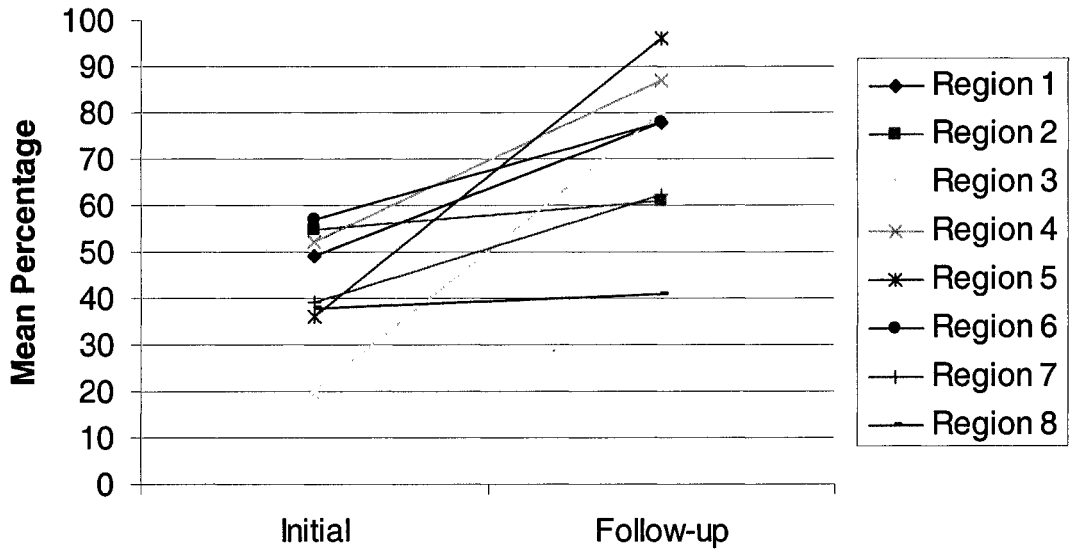


*Figure 2.* Interaction Between Time and Region of Mean Percentage of Affirmative Marks.

Also, to investigate the differences among the regions, post-hoc analyses were conducted using paired *t* tests. These analyses investigated changes in the percentage of affirmative marks at initial and follow-up IEP reviews by region. Table 8 shows the results of the paired *t* test for each region.

The results of these tests showed a significant change in the mean percentage of affirmative marks for six of the eight regions (75%) between the initial and follow-up reviews. No change was detected for Regions 8 and 2, $t(14) = .35$, $p = .731$, and $t(19) = 2.50$, $p = .024$, respectively. Figure 3 illustrates the mean percentage of affirmative marks

Table 8

*t* Test Results, Means and Standard Deviations of Percentage of Affirmative Marks for Each Region During Initial and Follow-Up Reviews

| | | Initial Review | | Follow-Up Review | | |
|---|---|---|---|---|---|---|
| Region | *n* | *M* | *SD* | *M* | *SD* | *t* |
| 1 | 14 | 49 | 22.4 | 78 | 14.5 | 5.10* |
| 2 | 20 | 55 | 11.5 | 61 | 6.5 | 2.50 |
| 3 | 7 | 20 | 17.7 | 80 | 17.7 | 7.98* |
| 4 | 24 | 52 | 16.3 | 87 | 8.8 | 10.51* |
| 5 | 27 | 36 | 14.5 | 96 | 9.1 | 19.10* |
| 6 | 29 | 57 | 11.4 | 78 | 6.7 | 10.47* |
| 7 | 30 | 39 | 22.3 | 62 | 19.0 | 4.35* |
| 8 | 15 | 38 | 27.4 | 41 | 24.0 | .35 |
| Total | 166 | 45 | 20.1 | 74 | 20.7 | |

*$p < .006$.

at the initial and follow-up reviews by region. As shown, Region 5 and Region 3 demonstrated the greatest increase in the percentage of affirmative marks between the initial review and the follow-up review ($M = 36$ vs. $M = 96$ for Region 5; $M = 20$ vs. $M = 80$ for Region 3). Region 8 had the smallest increase of percentage of affirmative marks between the initial and the follow-up reviews ($M = 38$ vs. $M = 41$). It appears that six out of eight regions (75%) demonstrated statistically significant improvement in the percentage of affirmative marks on the *Michigan Transition Requirements Checklist* between the initial and the follow-up reviews.

*Compliance change score.* To further investigate the concept of compliance, a one-way analysis of variance was conducted to evaluate the influence of region on

"compliance change score." The results indicated significant differences among the regions, $F(7, 158) = 16.4$, $p < .001$.

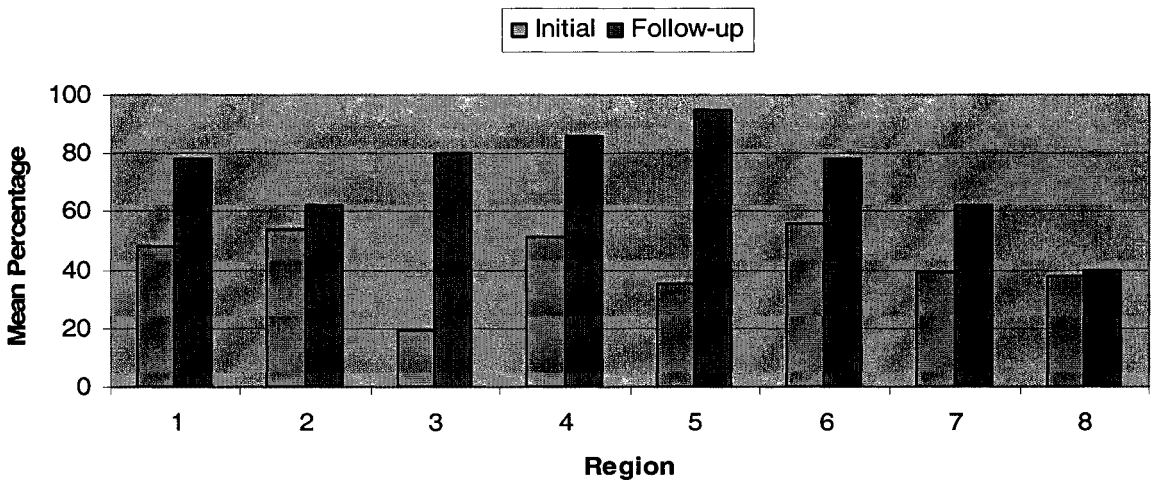


*Figure 3.* Mean Percentage of Affirmative Marks at Initial and Follow-Up Reviews by Region.

To investigate these differences further, follow-up tests were conducted. Multiple testing was corrected using a Bonferroni method of multiple comparison, which yielded an alpha level of .006 compared to the overall experiment-wide alpha of .05.The first follow-up test assessed pairwise differences among the means "compliance change score" of each region using a Tukey HSD. The results indicated a significant difference ($p < .001$) for mean "compliance change score" when comparing Region 5 to all regions but Regions 3 and 4.

The next analysis conducted involved one-sample *t* tests to determine if each region's mean "compliance change score" differed from zero. Table 9 shows the mean, standard deviation, and *t* scores for each region. As illustrated, for five of the eight regions, a significant difference was detected. Thus, it appears that results did vary by region.

Table 9

Means, Standard Deviations, and *t* Test Results of Pairwise Differences for Each Region

| Region | *M* | *SD* | *t* |
|---|---|---|---|
| 1 | 5.57 | 6.15 | 3.39* |
| 2 | .50 | 3.52 | .64 |
| 3 | 14.00 | 8.27 | 4.48* |
| 4 | 9.04 | 4.89 | 9.05* |
| 5 | 14.33 | 4.33 | 17.19* |
| 6 | 5.20 | 3.87 | 7.25* |
| 7 | 3.33 | 7.94 | 2.30 |
| 8 | –.33 | 8.65 | .88 |

*$p < .006$.

*Research Question 1-4*

To investigate compliance change further, subscales from the checklist were scrutinized. This research question focused on whether the effects of the Michigan Transition Outcomes Project on the compliance of the transition items in students' IEPs varied by content area. For this series of analyses, the individual items in the *Michigan Transition Requirements Checklist* were grouped into three broad content areas or categories: (1) participants in IEP meeting, (2) invitation, and (3) content of IEP (see Table 4).

*Percentage of affirmative marks.* A two-way within-subject analysis of variance was conducted to test (a) the main effects of the initial and follow-up reviews, and (b) the main effects of the three broad content categories. Table 10 shows the mean percentage and standard deviation of affirmative marks by category at the initial and follow-up review.

Table 10

Mean Percentage and Standard Deviation of Affirmative Scores by Category at Initial and Follow-Up Review

| | Initial Review | | Follow-Up Review | |
|---|---|---|---|---|
| Item Category | *M* | *SD* | *M* | *SD* |
| Participants | 51.5 | 28.5 | 78.5 | 24.6 |
| Invitation | 54.2 | 31.4 | 82.4 | 21.3 |
| Content of IEP | 41.4 | 31.7 | 70.0 | 18.1 |

Results of the ANOVA indicate that there was no significant interaction effects between IEP content category and time, $F(2, 29) = 2.65$, $p = .085$. Results showed that for each category of items there was a significant change in the mean percentage of affirmative marks between the initial and follow-up review, $F(1, 17) = 151.9$, $p < .0001$. However, no significant differences in mean percentage of affirmative marks at the initial and follow-up reviews between the three categories were found, $F(2, 29) = .036$, $p = .965$. It appears that results of the percentage of affirmative marks did not vary by broad content area.

*Compliance change score.* To compare the three broad categories of (1) participants in IEP meeting, (2) invitation, and (3) content of IEP, a one-way within-subject analysis of variance was conducted to test the null hypothesis that the mean "compliance change score" for each category was equal. ANOVA results indicated that there was no significant differences across the three categories, $F(2, 28) = 2.88$, $p = .084$. It appears that results did not vary by IEP content area.

*Summary for Part 1*

This study sought to determine whether the Michigan Transition Outcomes Project improved compliance with IDEA transition requirements as reflected in the IEPs of students with disabilities. First, when identifying the percentage of affirmative marks received on the *Michigan Transition Requirements Checklist* and comparing the overall results from the initial to the follow-up review, a significant increase between percentages of affirmative marks emerged.

When comparing individual items from the *Michigan Transition Requirements Checklist*, all items showed improvement in the percentage of affirmative marks. The greatest improvement was found for Items 2 and 10; however, all items improved in the percentages of affirmative marks. In addition, it appears that improvement in the percentage of affirmative marks occurred across all items in the IEPs that were examined. When focusing on compliance in terms of differences between the observed and the theoretical expected frequency for the follow-up review, it appears that a majority of the items (65%) improved in compliance with IDEA transition components.

When assessing the "compliance change score" of individual items from the checklist, the greatest distribution of scores was in the "yes/yes" category. Increase in compliance, as shown in the "no/yes" category, occurred in 7 out of 31 items. Further, results indicated improvement in compliance across the IEPs that were examined when comparing the "compliance change score" across all students. Further, it appears that improvement in the percentage of affirmative marks was found for each disability category but disability label was not a determining factor for improved compliance.

Results did vary by region. Thus, six out of eight regions improved in the percentage of affirmative marks after implementing the Michigan Transition Outcomes Project. Altogether, there was a significant improvement in compliance with IDEA 1997 transition components for five out of the eight regions after implementing the Michigan Transition Outcomes Project.

The results of comparing the similar items from the *Michigan Transition Requirements Checklist* from the three broad categories of (1) participants in the IEP meeting, (2) invitation, and (3) content of the IEP, indicated that the category was not a determining factor in whether improvement in compliance occurred. Similarly, data show that when grouping similar items from the *Michigan Transition Requirements Checklist*, each broad category had a significant increase in the percentage of affirmative marks in the follow-up review compared to the initial review and the broad category was not a determining factor for improvements.

## Part 2: Effects of the Michigan Transition Outcomes Project

### *Subjects*

The subjects for this part of the study consisted of the key contact people from each region that implemented the Michigan Transition Outcomes Project. These individuals were interviewed to learn their perspectives concerning the model. Identical questions were used during the interviews (see Appendix E). The interviews were transcribed, responses grouped by topic, and emergent themes were noted for each research question.

*Research Question 2*

This question inquired how implementation of the Michigan Transition Outcomes Project influenced the transition planning process for students with disabilities. Specifically, the key contact people were interviewed concerning the model's impact, the outcomes in each region, the strategies that were implemented, and the model's perceived strengths and limitations.

*Research Question 2-1*

This question examined the perspective of the key contact people regarding the positive and negative effects of participating in the Michigan Transition Outcomes Project had on their regions. The positive themes included (a) improved understanding of IDEA transition requirements, (b) greater student involvement in transition planning, and (c) improved collaboration between school staff and agencies. The themes for negative effects were (a) consumption of limited resources and (b) frustration due to lack of administrative and teacher support.

*Improved understanding of IDEA transition requirements.* Interviewees noted that the Michigan Transition Outcomes Project helped school staff improve their understanding of the IDEA 1997 transition requirements. It appears that teachers understood the basic concept behind transition, but lacked the knowledge of how to fulfill the transition requirements of IDEA. By using the *Michigan Transition Requirements Checklist* to gather initial data, participants reported that they could better pinpoint specific areas for improvement in compliance. One individual reported:

> I think that it [Michigan Transition Outcomes Project] caused us [school district staff] to really take a look at those [IDEA 1997 transition] requirements and whether or not we as school districts were fulfilling these requirements of IDEA and how we could do this more efficiently and effectively.

Greater knowledge of IDEA transition requirements appears to have led to comprehensive transition planning for students with disabilities. Thus, interviewees communicated that staff became more confident about how to implement these requirements effectively. One individual commented:

> Before [this model] "transition" was just a word that was out there and we were worried about how to describe that word. Now they [school staff] know that transition is a process. Everyone [school staff] knows what transition is and that transition is different for every student [with a disability].

*Greater student involvement in transition planning.* Another emerging theme showing a positive effect of implementation of the model was that students with disabilities became more involved in the IEP process. IDEA requires that the transition plan be based upon the individual student's needs, taking into account the student's preferences and interests (PL 105-17, Section 602 [30]). With greater awareness of this requirement, the school staff asked students about post-school preferences and interests in terms of living, education, and community involvement. The key contact people reported that staff asked questions about post-school preferences and interests, requiring students to make life style decisions. According to the interviewees, placing post-school ownership on the students enabled the students to make decisions and to be responsible for these decisions, and in turn, empowered the students to become active participants in the transition planning process. One key contact person commented:

> It has been empowering for them [students with disabilities] ... they were used to more of a handholding approach [before this model]. Now they are more empowered and that [handholding approach] does not seem to have happened as

> much because it [transition IEP] is all about them. It has been a significant paradigm shift and empowering the student's role in the system.

According to the key contact personnel, once the students were asked to be full participants in transition planning, students seemed to embrace this responsibility. The students seemed to realize that this plan focused on their goals and dreams, and that they had control over this plan. The interviewees commented that the students understood how transition planning would prepare them for the future. As one key contact person reported:

> Students had a better idea and more control and ownership than before because they understand that they [students] were in school for them, not in school for us [teachers and parents]. It was not just to get a diploma, a handshake, and a walk across the stage to get a diploma. They [students] were saying, "If I take these classes, then I am ready [for life after high school]." They are really seeing that these are the classes they have to take and once they take these classes, [the students] will be prepared [for adult life] ... They are leaving our school prepared. They are not starting the next phase in their lives behind the eight ball.

*Improved collaboration.* The third positive theme that emerged was improved collaboration. The participants pointed out that collaboration improved between school staff because the middle school teachers were participating to a greater extent in the transition planning process. According to the participants, this improved collaboration was initiated by the clarification of the transition components of IDEA, and this collaboration, in turn, resulted in better communication between the high school and middle school staff. One person reported:

> I think that our teachers have always worked close together, but the difference is that they [middle school and high school teachers] are speaking the same language. This has helped the middle school and high school special education teachers work closer together.

Another interviewee gave the following example of how interdisciplinary collaboration has improved the transition planning process for a student with a disability:

> The teachers and administration are collaborating differently. They know where the student is heading and they can be on the "look out" for things. For example, if a student is interested in acting, but is shy about it, the teachers can talk to the drama coach about this interest.

Another improvement in collaboration, as expressed by the respondents, involved school staff and community agencies. Schools started inviting appropriate agencies to the transition meeting to assist in the future planning for students with disabilities. As one person reported:

> We are branching out to agencies. The model [Michigan Transition Outcomes Project] has really helped because we have said, "Now we need this agency at this [student with disabilities IEP] meeting."

This improved collaboration appears to have resulted in increased knowledge about the services available to students. That is, school staff realized that outside agencies constitute a vital part of the transition planning process and began communicating agency information to the IEP participants. One key contact person commented:

> It [model] educated the special education teacher about different agencies and then they [school staff] passed this information on to the student and parent. If one agency could not help them [student and family], then they [school staff] could recommend another one [agency].

*Consumption of limited resources.* Even though many positive themes were reported concerning the model, the interviewees also discussed some negative themes. One of these themes was the consumption of resources.

The key contact people reported that in order to implement the model, districts had to use the resources of time and money. Finding the monies necessary to implement the model could be difficult. For example, inservices devoted to training the school staff were necessary, but during times of budget constraints, some training took place outside the staff's working hours to save on substitutes' pay. The participants commented that the

extra work hours sometimes caused animosity between administration and school staff. A key contact person discussed the difficulty of getting financing for substitutes:

> We would have to meet after school [for staff training for the model] because our school is not giving out substitutes anymore because of money problems. So people cannot go to inservices.

Implementation of the Michigan Transition Outcomes Project also required the investment of time. The key contact people expressed that this time component was immense. Individuals interviewed discussed the time component for them—as the key contact personnel from their region. One person commented:

> One of the negative things [effects] that I can think of is how much time it has taken up of mine [as a key contact person for the Michigan Transition Outcomes Project].

The model also required inservices that caused teachers to be away from their classrooms at varying times throughout the school year. A key contact person reflected:

> There was a lot of time involved [to implement this model]. It was a lot of time spent away from the classroom [for the school staff]. That was a burden because it took the teachers away from the students quite a bit [during the implementation of the model] because there was so much learning to do.

*Frustration due to lack of administrative and teacher support.* Another negative theme related to the effects of the Michigan Transition Outcomes Project was frustration felt by the key contact people due to lack of administrative and teacher support. Part of this lack of support was tied to the time factor that this model required. As one person commented:

> They [teachers] think that it is just tons more to do and they just don't want to do it and they [think that they] don't get paid enough and they think that there is too much on their [special education teachers'] plate already. I called everybody who was a secondary teacher to tell them how important it [model] is and to get everyone excited about it, but I just couldn't seem to get everyone to do it.

The interviewees indicated that some of this lack of support seems to stem from some teachers' apprehension about learning new material and developing new programs:

> Their [teachers] first reaction was "why are you changing the form, we just figured it [old form] out?" I [key contact person] had to bring them [teachers] on board ... that is always a struggle.

The key contact people also voiced frustration because of lack of administrative support in their districts. It took years to implement the model and part of the product was the development of strategies devoted to improving the transition planning process for students with disabilities. In some regions, the administration failed to continue the strategies put into place during implementation. One key contact person spoke of his/her disappointment of this lack of support:

> The IEP we use now is different than what we proposed [as a result of the Michigan Transition Outcomes Project]. We want to pull our hair out. Were we the only ones who did this process, put all the hours in, and were shot down because it was not supported by our ISD [Intermediate School District] and special education director?

*Research Question 2-2*

This question queried the key contact people about the positive and negative results achieved while participating in the Michigan Transition Outcomes Project. Specifically, interviewees were asked whether participation in the Michigan Transition Outcomes Project had created positive or negative results for the transition planning process and to discuss the results of participation in the model. Reported results included (a) focused meetings on students' strengths at transition meetings, (b) improved perceptions concerning the abilities of students with disabilities, (c) engaged parents at meetings, and (d) improved compliance with IDEA 1997 transition requirements.

*Meetings focused on students' strengths.* A reported result of implementing the model was the focus on the strengths of particular students. The participants expressed that this positive focus helped motivate the participants to develop a comprehensive transition plan for a student. A key contact person reported:

> We [staff] were making more positive comments and statements about where the student was in his present level of performance and his goals and objectives and where the student was in his present education. Rather than saying, "the child's IQ is only this and he is only reading at a 2nd-grade reading level," we [staff] were saying, "this student has learned—like if a student was going into carpentry—this child has learned to identify many tools of the trade and can now read these words." Because this is what the child needs to know if he is getting into this trade of carpentry and you [staff] can incorporate this into the goals and objectives. You can be very positive about where he [student] is, rather than the opposite like saying, "he [student] is a 2nd-grade reader, and here he [student] is in the 10th grade." We are focusing on the strengths, and this was more motivating. We now say, "Because you [student] are interested in working with wood and in the field of carpentry, you [student] have to get your reading level up to the 4th grade." Now the student is a little more excited and goal driven to get his reading grade level there [at 4th grade].

The participants communicated that the transition planning process concentrated on the academic assets and potential of student with disabilities. The model seemed to have helped motivate a region to develop and implement compliant and comprehensive transition plans based on the student's preferences. Furthermore, these transition plans focused on the student's skills, not deficits in areas such as reading, writing, and math. One key contact person commented:

> It [Michigan Transition Outcomes Project] gives it [IEP meeting] understanding and context. All what people first heard about [during the old IEP meetings] was what all the things the student could not do. All his deficits. Now we [school staff] have changed the context to where we are at and say, "What does the student want to do, where does the student want to live, and how does he want to participate [in the community]?" It [model] changed the rules.

*Improved perceptions of students' abilities.* The second theme that emerged concerning the results of participating in the Michigan Transition Outcomes Project was a

change in perceptions of the abilities of students with disabilities. Key contact people communicated that students with exceptionalities were no longer categorized and placed into certain programs simply because they were labeled with a certain disability. It appears that the students were given the opportunity to try new avenues to explore future goals and dreams. Many times, this exploration led to the student pursuing and succeeding in unexpected goals while exploring different post-school options. The interviewees discussed how this success led to greater appreciation by the staff of what students with disabilities can do if given the opportunity to try. A key contact person commented on this change in attitude:

> This has been an eye-opening experience for our students, parents, and staff. When I say "staff," I mean teachers, administrators, and special education teachers. This [experience] increased the students' self-concept as well as increasing and improving the perceptions of staff and administration of what these kids [students in special education] are capable of achieving.

*Enhanced parent participation.* Parent and family contributions are vital to a strong transition plan. The key contact people discussed how parents became active participants in the transition planning process of their child. According to the interviewees, the school staff started questioning the student and parents about post-school desires and visions for the student. Since the IEP meetings began focusing on a student's strengths and his/her post-school plans, the parents were more inclined to be engaged in these meetings. This theme is illustrated by one key contact person explaining the reason why he/she believed parent participation improved with the implementation of the Michigan Transition Outcomes Project:

> In the old days, it [IEP meetings] appeared to be quite random. There were a bunch of professionals that came in and talked about the recent testing and about what the testing said and the regular education teacher that came in and talked about how the student was doing in the class and then asked "Okay, is there any

> other comments, questions, or concerns?" Now all they [parents] hear about is that their kid will never be like any other kids and always he is deficit in this and deficit in that. Deficit area, deficit area, deficit area. Then you [school staff] are asking the parents after that, "Do you have any comments?" That didn't work too well. Before we called them participants, but that was a stretch; they were attendees. They [parents and students] were there, we [staff] ran the meetings, we [staff] talked to them, and we got them convinced to sign in the end. That was in the old days. We [staff] were talkers and tellers in the old days, but not necessarily listeners. Now we [staff] walk into an IEP, we are really listeners and we [staff] ask the questions and they [parents] are giving us suggestions ... The engagement of the students and parents is the amazing part.

Comments from the interviewees indicated that the parents began to understand how important planning for life after high school was for their son or daughter. The transition meeting was an important tool to initiate successful planning. The respondents noted that the parents wanted to attend the meetings, and there was a noted improvement in parent input. One key contact person summed up this improvement of parents' participation by saying:

> Now, people [parents] come in. It is not like it used to be when we [schools] had to beg the parents and students to show up and come to the meeting. Now, they can't wait. Now they [parents and students] are ready to brag about each other and if things are not going well, they are ready to regroup and come in with ideas of where they want to go. It is quite a change and it [transition meeting] is understandable to the parent. They can understand how this process works. It has just worked out well. It's amazing!

The interviewees reported that the communication link became stronger between the home and school. Many times, parents would call the school staff to discuss the transition plan for their child. In addition, respondents commented that the parents realized that the school was trying to assist the student to accomplish his/her post-school outcomes, and this in turn motivated the parents to search for other services to help their son or daughter. To illustrate this point, one key contact person declared:

> Parents are more satisfied with this process [of transition planning]. They [parents] saw that the school was really striving to help their child accomplish

> what the kid wanted. And it helped them [parents] find other ways of what needed to be done in order to get the kid there ... I think that it has helped them [parents] focus a little bit more on what achievements needed to be made in order for the kid to do what he wanted.

*Improved compliance*. The final theme that emerged from the interviews was improved compliance with the IDEA 1997 transition requirements. Briefly, interviewees perceived that the model assisted the regions in locating areas of strengths and weaknesses and developing plans to improve deficit areas. For example, a key contact person reported:

> We are very pleased. In all the areas of the questions [on the *Michigan Transition Requirements Checklist*], the lowest is 88% [for compliance]. The rest [of the questions on the *Michigan Transition Requirements Checklist*], we scored 100%- or in the 90s. We are all set up for compliance from the project [Michigan Transition Outcomes Project].

*Research Question 2-3*

This question asked interviewees to report the practices, strategies, and procedures implemented to help improve the region's compliance with IDEA transition requirements subsequent to the initial IEP review. The key contacts were asked to respond to the interview question about the new practices that the region implemented or strategies the regions did differently between the first review of the IEPs and the follow-up review of the IEPs. In total, the participants reported 55 strategies (see Table 11). These 55 strategies were condensed into 20 similar items, which were subsequently grouped into five categories.

Researchers have studied and documented a number of specific recommendations for helping facilitate successful movement from school to adult life for individuals with

Table 11

Strategies, Procedures, and Practices Implemented Across Regions by Practice Category ($N = 8$ regions)

| Taxonomy Category | Strategy | Number of Regions Reporting |
|---|---|---|
| Student-Focused Planning | | |
| | Changing IEP forms | 7 |
| | Changing invitation forms | 7 |
| | New forms training | 7 |
| | Additional formal assessments | 4 |
| | Additional informal assessments | 1 |
| Student Development | | |
| | Life skills class | 2 |
| | Work experience in school | 1 |
| | Work experience outside school | 1 |
| | Conference for students on training | 1 |
| | Advocacy class for college-bound student | 1 |
| Interagency/Interdisciplinary Collaboration | | |
| | Inviting agencies to IEP | 3 |
| | Team teaching with local ISD personnel | 2 |
| | Inviting middle school staff to IEP | 1 |
| | Resource directory | 1 |
| Family Involvement | | |
| | Parent information meeting | 3 |
| | Written materials to parents | 2 |
| Program Structures and Attributes | | |
| | Training on IDEA requirements | 8 |
| | Additional staff | 1 |
| | Educating middle school of offerings | 1 |
| | Transition informational newsletter to staff | 1 |

disabilities. Specifically, the *Taxonomy for Transition Programming* has organized these practices into five categories: (1) student-focused planning, (2) student development, (3) interagency and interdisciplinary collaboration, (4) family involvement, and (5) program structure and attributes (Kohler, 1996; Kohler & Field, 2003).

After reviewing the reported strategies, practices, and procedures reported by the key contact personnel, these strategies were organized into themes and patterns by cutting and sorting into file folders. Themes emerged that aligned with the *Taxonomy for Transition Programming*. Because of the alignment and to help clarify the strategies, the reported practices were placed in the five categories of the *Taxonomy for Transition Programming*. To test the reliability of the placement of these strategies in the taxonomy, interrater reliability was calculated resulting in an agreement rate of 90%. This rate is above the accepted agreement rate of 80% (Fraenkel & Wallen, 1993; Glass & Hopkins, 1996; Salkind, 2000). The taxonomy categories will be the basis for the organization of the implemented strategies, procedures, and practices to be discussed below.

*Student-focused planning.* The student-focused planning category consists of development of the IEP, student participation, and planning strategies (Kohler, 1996; Kohler & Field, 2003). The majority of the regions reported at least one new practice in this category, including revision of IEP forms, revised invitations to participants, and informal and formal assessments used for transition planning purposes.

The first practice involves revisions of IEP forms. IEP forms were revised in the majority of the regions that implemented the model. According to the respondents, many of the revisions brought transition to the forefront, thus, making the focus of the meeting one of "transition first." In that regard, one key contact person commented:

> Because we changed our [IEP transition] forms, it brought transition to the forefront. The transition page is the first planning page in our IEP now. So instead of it [transition] being a separate document that we might say, "Oops, we almost forgot about transition," now it's [transition] done after everyone signed in [on the IEP form], and transition is the focus of this meeting.

This repositioning of the components in the IEP form also caused the transition meetings to take on new meaning for IEP participants. Thus, the agenda focused on helping the student plan for life after high school. Further, the new IEP form had a natural flow, making it more understandable to the IEP participants. One key contact person spoke about his/her region's revised IEP form:

> Instead of putting things in random like other [IEP] forms did, our [IEP form] goes from what do you [student] want to do, where do you [student] want to live, and how do you [student] want to participate in the community. Next, it [IEP form] goes to PLEP [Present Level of Educational Performance] then it [IEP form] goes to course of study [transition services needs], and then it [IEP form] goes to connecting activities, and then it [IEP form] goes to goals and objectives. So it has a logical flow about it. Everything is tied together. It is not a hard concept for the parents or anybody outside the "training loop." If you were a person who had never been to an IEP [meeting] and walked into one of them, you could be engaged in it somehow. Because it is all about "what do you [student] want to do ... and then how you [student] are doing." The PLEP [Present Level of Educational Performance] is how the student is functioning in relationship to where the student wants to be.

The respondents expressed that changing the IEP forms to focus on transition was the first step toward developing a solid transition plan for students with disabilities. As one interviewee stated:

> We changed the IEP form ... from this change, becomes better planning. This doesn't automatically mean that they [students] will have better services, but it is the first step. Our thought is that you have to have a good plan before services are put into place. So, this [IEP form] is the first step.

Instruction for school staff on writing transition IEPs that would comply with IDEA 1997 was also initiated during implementation of the model. A key contact person reported:

> We had a meeting with all the high school and middle school special education teachers to make sure that everyone knew how to do the new IEPs [forms]. We went over the places in the IEP like the "needed transition services," and who [school staff or agency] is responsible for that and the timeline.

The interviewees commented that this training for writing the new IEP form seemed to be necessary not only for the special education teachers, but also for the school administrators. A key contact person commented:

> The administrators had to be trained [to use the new forms] because in most schools [in our region], the administrators ran the IEP meetings ... They [administrators] wanted to learn. They [administrators] were sick of the frustrations. IEPs have been painful for so long. Now, they [IEP meetings] are not so painful.

In addition to new or revised IEP forms, many regions developed new invitations to the IEP meeting. The key contact people communicated that these invitations were constructed in such a way that human error was eliminated and compliance of IDEA could be obtained. An interviewee commented:

> We had to redo our parent notice to make it foolproof. We had to make it foolproof so if a teacher forgot to check a box, we [region] were not out of compliance. So, instead of having a checkbox—like for "transition services needs" or "needed transition services"—we have a comment on the invitation, "if your child will turn 14 during the implementation of this IEP, transition services needs will be addressed." And "If your child will turn 16 during the implementation of this IEP, needed transition services will be addressed." So we put these statements in there, instead of a checkbox. Now, that puts us in compliance. But before if you had a checkbox and it wasn't checked when it was supposed to be, you were out of luck [and not in compliance].

In addition to the traditional invitation to the parent or guardian, the key contact people reported that many districts started to send a separate invitation to the student in an effort to make the student feel valued. This, in turn, appears to have improved student participation at the IEP meeting. One key contact person commented:

> We changed our invitation where we actually invited the student separately, and then we sent out our traditional form to the parents. We had very good participation with the students at the middle school and high school.

The final practice in this category was the use of formal and informal assessments. Both types of assessments were used during implementation of the Michigan Transition Outcomes Project to identify the needs of students with disabilities and their families. One region developed an informal assessment that was completed by the parents to gather information about their point of view regarding transition planning for their student. An interviewee reported:

> This [assessment] form goes out with the invitation [to the parent] and the parent needs to fill out the [assessment] form and take it to the IEP meeting. This is a school-made form that asks what they [parents] believe the student should do after school, what they [parents] think is part of the problem, and what they [parent] are worried about as their student moves on to the next level [high school and beyond] and the solution they suggest to help the student better prepare for transition. This [informal assessment] helps communicate about transition.

Formal assessments were also an important part of gathering information from students, parents, and teachers concerning transition. The key contact people reported that a popular tool used in many regions was the *Enderle-Severson Transition Rating Scale.* According to the participants, this scale helped assess the needs of students with disabilities in term of post-school adult living, postsecondary education, community participation, employment, and social/vocational behavior. Other assessments that the key contact people reported using included the *Works Assessment Inventory Survey* and the *PACT.*

*Student development.* This category consists of teaching students with disabilities skills and strategies that enable them to reach goals (Kohler, 1996; Kohler & Field, 2003), including life skills instruction, career and vocational curriculum, and structured work experience. Regions reported many practices under this category.

The interviewees reported that life skills classes were created and given titles such as "Transition" and "Freshman Focus." The curriculum focused on the development of

friendships, self-determination skills, and life goals exploration. These classes were required in the student's freshman year. Personnel from the local intermediate school district teamed with classroom teachers to provide instruction on life skills using published curriculum. This type of class was such a success in one region that it branched out into the general education classes. One key contact person noted:

> The administrators saw what a neat experience it was for students in special education, and they thought that this should be done for everyone. Sometimes we incorporate it in a math or English class one day a week. It is incorporated in the curriculum and usually taught in a team-taught room [of special education teachers and general education teachers].

Life skills instruction also took the form of conferences that informed students about transition planning. For example, one region held a night conference that discussed agency services, post-school education, job skills, and transfer-of-rights information.

One region noted that students with disabilities lacked the advocacy skills required to compete in higher education, such as disclosing their disabilities to appropriate college faculty, identifying available services at the college level, and communicating what accommodations were necessary to succeed at the college setting. The key contact people reported, that as a result, interested students were trained in these areas and also received instruction on college awareness, available services in higher education, and advocacy skills.

Another practice implemented in this category was the development of work experience for students. One school collaborated with the region's community-based instruction program to develop work-related skills. During this program, a student worked at a job placement and wrote work goals while being monitored by school staff and the employer. The key contact person reported:

> In the 10th grade, we did the CBI [community-based instruction] program where they [students with disabilities] have a job and goals. Together with the employer, these goals are written. These goals are checked and monitored by the employer and the school. This has worked very well.

Another region incorporated a work experience into the school setting. Here the special education teachers helped students develop and run a small business that operated during school hours. One of these businesses was "Hallway Card Shop" in which the students made and sold stationery during the school day. Another school business worked with an outside food source to sell subs during the school lunch hour.

*Interagency and interdisciplinary collaboration.* Interagency and interdisciplinary collaboration involves coordinating multiple agencies, programs, staff personnel, and services that work together to promote successful transition from school to work (Kohler, 1996; Kohler & Field, 2003). While collaboration with outside agencies and school personnel has been established before the model began, the key contact people perceived that the quality of this collaboration improved during the implementation of the model. Identified strategies used to help facilitate interdisciplinary collaboration included inviting the middle school teachers to meetings, team-teaching life skills classes, developing resource directories on agencies, and inviting additional invitation to outside agencies.

The key contact people reported that the middle school staff provided the groundwork for the transition planning process. Because of this foundation, the middle school staff often has background of the transition plan and post-school outcomes for a particular student. Interviewees commented that in order to make a smooth transfer from middle school to high school, the middle school staff needs to be invited to the high school IEP. One key contact person commented:

> I think that collaboration between middle school and high school [staff] has gotten better because of the model [Michigan Transition Outcomes Project]. One of the reasons is that the middle school staff needs to know what is going on and needs to get invited [to meetings] because the middle school teachers are doing the initial planning for transition.

In addition, the respondents communicated that collaboration improved when personnel from the local intermediate school district came into the classroom to team-teach with classroom instructors on life skills for students with disabilities.

Interagency collaboration also improved during implementation of the Michigan Transition Outcomes Project. IDEA 1997 requires that school districts invite appropriate adult and community agencies to the transition IEP meeting. To begin this awareness, several regions developed a resource directory containing information about local and state agencies and distributed it to the school staff. The key contact people expressed that this newfound awareness of agencies led to agencies being invited to the IEP earlier in the transition planning process. A key contact person described how his/her district improved the invitation to outside agencies:

> It [Michigan Transition Outcomes Project] made us find more information about services that were available in the community and that we needed to invite these people to the IEP meeting—such as people from Community Mental Health, Center for Independent Living, and Michigan Rehabilitation Services. We have increased the number of agency people that are invited to the IEPs.

Many interviewees pointed to Transition Councils (a group of representatives from different agencies and schools) as another important link in developing collaboration of interdisciplinary and interagency collaboration. The participants discussed the mission of this council as helping to facilitate successful transition for students with disabilities. These councils were established before the Michigan Transition Outcomes

Project started, but they were beneficial to regions by supporting transition and being a networking group. As one key contact person reported:

> Our Transition Council supported our efforts [for the model], but this council was up and going before we started this process [Michigan Transition Outcomes Project].

*Family involvement.* Families participate in a student's transition planning in a variety of ways, including by being involved in the planning, assessment, decision-making, and policy development (Kohler, 1996; Kohler & Field, 2003). During the Michigan Transition Outcomes Project, many regions concentrated on improving family involvement in the transition planning process of students with disabilities. Strategies reported by the participants as being used to help facilitate family participation included informational parent meetings and developing written materials to parents.

Informational meetings about transition were conducted in area schools. The goal of these meetings, according to the interviewees, was to inform the family about the transition planning process. Many regions collaborated with their intermediate school districts to plan and facilitate these meetings. One region offered an informational meeting twice a year named "What Families Need to Know about Transition." During this meeting, information was given about the definition of transition, how the student's IEP would be driven by his or her life goals, and the importance of receiving input from the parents and other family members in developing appropriate transition plans. This region reported a rate of high parent attendance for the event.

Communication to parents and families not only took place through programs and meetings, but also through written materials. One region placed transition information into the 10$^{th}$-grade conference packet mailed to every parent to read before the student's

parent-teacher conference. The information included statement of rights, employability factors, responsibilities concerning transition, and the differences between high school and college services.

Another region developed a booklet that was distributed to every parent when the student with a disability turned 13 years old. As stated by the key contact person:

> This booklet is a primer about transition, and written in a way to communicate what the [transition] IEP focuses on so when the parent attends the IEP meeting, he [the parent] understands the process.

*Program structure and attributes.* The category of program structure and attributes relates to the delivery of transition-focused education and services and includes philosophy of transition planning, policy, evaluation, resource allocation, and human resource development (Kohler, 1996; Kohler & Field, 2003). During the implementation of the Michigan Transition Outcomes Project, the participants brought up several strategies that could be defined under this category such as adding personnel, training school staff, educating staff about school offerings, and developing an informational newsletter for school staff.

One region hired additional staff whose job description was to aid students, parents, and school personnel in the transition planning process while also being assistants to the key contact person. These persons served as advocates for the transition planning process. The key contact person reported:

> We have a transition person in every school that is strictly there for transition. These people do job placements, follow-ups, and any information that I [key contact person] need to get out goes through them ... like if there are any questions, they [teacher, student, parents] can ask them [transition helper at school], and they [transition helper] have access to me [transition coordinator].

The participants reported that school personnel need training about the transition planning process. Some respondents commented about the necessity of making an organized and solid start for a student's transition plan. According to the key contact people, in order to make a smooth transfer from middle school to high school, the middle school staff needed to become aware of the offerings at the high school. With this knowledge, the middle school staff could start making a cohesive transition plan for the student starting at the appropriate age. One person commented:

> They [middle school staff] need to know what happens at the high school level and what is available at the high school level. So, it has forced them [middle school teachers] to learn what is available there [high school] and what they can legitimately plan for a student.

The key contact people reported that training opportunities for school staff were numerous during the implementation phase of the Michigan Transition Outcomes Project. One person reported:

> We did a lot of professional development [for the Michigan Transition Outcomes Project]. We [particular region] brought in an expert so that the local superintendent and local school personnel could hear information about the transition requirements of IDEA.

According to the interviewees, training on the transition planning process seemed to be necessary not only for the special education teachers, but also for other school staff personnel. Staff members who attended training included superintendents, general education teachers, high school principals, counselors, and middle school principals. A key contact person commented:

> The administrators were trained [in the Michigan Transition Outcomes Project] ... Now [after implementation of the model] they [administrators] can say, "We got a school, we got a curriculum, we got some services. Tell us which one is best for your child."... Before [implementing this model] they sat down and said "What am I going to say, what are we going to do for this kid?"

Informants also thought that the training was an important piece of implementing the transition planning process smoothly and in a unified manner. It was reported that the school staff had some knowledge about transition, but often had different visions about the transition process. According to the key contact people, these training sessions helped give staff members a uniform stance. One person reflected on this training:

> We have done inservices for the teachers so everyone is on the same page and they understand the [Michigan] Transition Outcomes Project. We [school staff] all got a lot smarter with being consistent of having the same language with the forms. We got this knowledge through inservices.

In order to communicate the philosophy of transition, one region developed a written document entitled the "Transition Newsletter" which was sent out during implementation of the model. The goal of the newsletter was to inform teachers and administrators about the transition planning process, the transition philosophy of the district, and identified the transition requirements of IDEA 1997. This newsletter also communicated to the school staff about the target goals that the region in their *Transition Outcomes Improvement Process Action Plan.*

*Research Question 2-4*

In the last series of research questions, the key contact people were asked to identify the strengths and limitation of the Michigan Transition Outcomes Project and reflect on what they would keep the same and what they would do differently if they were to implement the model again. The participants reported two strengths and two limitations of the model. The themes surrounding the strengths were (a) ownership of program is at the local level, and (b) the model produces quantitative data. The limitations were (a)

the model will fail without strong administrative support, and (b) the model is a long and time-consuming process.

*Ownership at local level.* A reported strength of the Michigan Transition Outcomes Project was that each intervention was developed at the local or district level. As previously discussed, the model required that the school start by reviewing its data from the initial IEP reviews to determine whether the compliance obtained for each requirement on the *Michigan Transition Requirements Checklist* was satisfactory or unsatisfactory. If the region decided that the percentage was unsatisfactory, a target percentage was set and a strategy identified to reach the target. The ownership of this decision and the development of strategies to address the compliance was at the local level. A number of key contact personnel reported that by addressing requirement concerns at the local level, the process was more powerful:

> We [school staff] got together and created some interventions that were very workable in our district. We had ownership of our work [during the implementation of the Michigan Transition Outcomes Project].

*Quantitative data.* Another reported strength of the Michigan Transition Outcomes Project was that it yielded quantitative measures that included baseline and exit data for each region. The respondents commented that with the baseline data, each region could pinpoint problems with compliance with the IDEA 1997 transition requirements. One key contact person described it as follows:

> It gives you baseline data, and it is something that you can measure yourself against. It [the *Michigan Transition Requirements Checklist*] is a good tool to use to measure your [region's] compliance ... and to determine where you [region] are at and shows you your [region's] weaknesses.

*Necessary administrative support.* A reported limitation of the Michigan Transition Outcomes Project was the need of administrative backing. The participants

communicated that the administration needs to foster and bolster enthusiasm for the model and show leadership in its execution. Also communicated was the need for the administration to allow teachers release time from the classroom for training while also finding funds for this training. Administrative support is necessary for successful implementation of this model; however, many key contact people reported a lack of support and follow-through at the administrative level. One person simply said:

> The biggest limitation [of the Michigan Transition Outcomes Project] was the lack of administrative support at the special education director's and superintendent's level.

Some participants reported that their administration did not follow through to implement the strategies, procedures, and programs that the school staff suggested during implementation of the model. Individuals who had spent years working on and developing new ideas were dismayed to learn that these new ideas were not implemented into the school district's future policies. One key contact person reported:

> It [the Michigan Transition Outcomes Project] was implemented well, but in my personal opinion they [administration] "dropped the ball." I have not heard one word about it [implementing ideas from the model], and my understanding is that they are going back to the old IEP [form].

When asked what they, as the key contact person implementing the model, would do differently, many reported that they would explain the model more thoroughly to the administrative team and gather better support in terms of funding availability and training options before they started the model.

*Time component.* Another reported limitation discussed by the key contact people was that it takes several years to implement the Michigan Transition Outcomes Project and see results. This length of time is necessary because of the education, planning, development and implementation of strategies, and data collection that must take place to

implement the model. Even though the participants apparently understood the rationale for this expenditure of time, the process still seemed too long. Interviewees reported that the model required much of the key contact person's time and devotion. A key contact person reported:

> There are only 24 hours in a day. This is a big limitation to this process. I only do this job [key contact person for the Michigan Transition Outcomes Project] for a small part of my job description ... There are so many demands [on my time] and so many things that need to be done.

The participants also expressed that the model requires that the school staff devote time to learn about the process. According to the key contact people, the time spent learning about the model could cause stress within the school staff. This point was emphasized by one person's comment:

> The people [school staff] could get grumpy and ornery, and I believe this was because they [special education teachers] have so little time and so many things on their plates ... It is so hard to get pulled out during the year and to get subs and to have to come back and to do all the work that you [teacher] missed [because of attendance at trainings].

*Key contact personnel suggestions.* While assessing the strengths and limitations of the model, interviewees were asked to give suggestions to school districts contemplating adopting the model. Overwhelmingly, they noted that they would implement the model again. Most of them were pleased with the Michigan Transition Outcomes Project. One person reported:

> It [Michigan Transition Outcomes Project] gave us some direction for where to start and where to go forward. And yes, it was a lot of work, but anything good does take a lot of work. It was worthwhile.

While using this model, the participants perceived that their districts grew in their knowledge about the transition planning process. The planning process had a context and sequence that was understandable to parents, school staff, and students. A key contact

person commented on his/her overall reaction to the Michigan Transition Outcomes Project:

> I am supportive of it [Michigan Transition Outcomes Project]. If you were in the old-type model [schools who have not implemented the Michigan Transition Outcomes Project], I would tell them [schools who might implement the model] to walk through our school and talk to any transition-age student about transition. Ask them [students] some questions. Don't believe me; go talk to them [students]! That is where the difference is. Then the light goes on, and they [staff from school that has not implemented the model] say, "Wow, I would walk through my own school and ask them [students] these same questions, and I don't know if they [students] would have an answer. But when I walk through this school and I ask the students here, they [students] know the answer and they [students] even understand the question." It [Michigan Transition Outcomes Project] sells itself. I can't imagine in this day and age why someone would not use a process like this. It is common sense. It makes sense.

*Summary of Part 2*

Part 2 of this study used qualitative means to investigate the perceptions of key contact people regarding how implementation of the Michigan Transition Outcomes Project affected the transition planning process for students with disabilities in their regions. Key contact personnel addressed results achieved, practices implemented, and the strengths and limitations of model.

The results of interviews with the key contact personnel from each region indicate that the Michigan Transition Outcomes Model had three positive effects: (1) greater understanding of IDEA's transition requirements, (2) enhancement of students' participation in the transition planning process, and (3) improved collaboration between school staff and outside agencies. The negative aspects included the need for extensive resources of time and money to implement the model and frustration due to lack of administrative and teacher support.

When asked about the positive and negative results of implementing the Michigan Transition Outcomes Project, the key contact people overwhelmingly reported positive results. The outcomes consisted of better focused transition meetings, improved perceptions concerning the abilities of students with disabilities, more parent participation at transition meetings, and improvement in compliance with IDEA transition requirements.

Participating regions developed and changed practices, strategies, and procedures while implementing the Michigan Transition Outcomes Project. These practices included changing IEP forms, using both formal and informal assessment, offering life skills instruction and work experiences for students, collaborating to team-teach in classrooms, sending additional invitations to agencies, inviting middle school personnel to meetings, offering family-focused informational meetings and publications, adding personnel, training staff, and developing written information for school staff. The most frequently implemented practices were changing the IEP and invitation forms, and initiating staff training.

Finally, the key contact people reflected on the strengths and limitations of the model. The strengths included reporting compliance in quantitative terms and ownership of the model at the local level. Reported limitations included the amount of time needed to implement the model and the necessity of strong administrative support in order to implement this model. Thus, the key contact people overwhelmingly reported that they would implement the Michigan Transition Outcomes Project again, but they would get more administrative and staff support before executing the model the next time.

# CHAPTER 5

# DISCUSSION

This study investigated the Michigan Transition Outcomes Project to determine whether this model resulted in improved compliance with the transition components of IDEA 1997, and examined the perceptions of school personnel who have implemented the model on how it affected the transition planning process for students with disabilities. A combination of qualitative and quantitative methods was used. The study analyzed the quantitative data collected by the Transition Services Project of Michigan during initial and follow-up reviews of the model regarding compliance with IDEA 1997. In addition, qualitative data were gathered through interviews with key contact personnel about how implementation of the model had affected their region, specific outcomes of the model in their region, the strategies and practices initiated during the intervention, and the general strengths and limitations of the model.

Results from the quantitative data show (a) all participants' IEPs improved in terms of frequency and percentage of affirmative marks; (b) the percentage of affirmative marks improved across all items in the students' IEPs; (c) a majority of items showed a significant difference between the expected and observed frequency; (d) the greatest distribution for the "compliance change score" was in the "yes/yes" category; (e) increase in compliance as shown in the "no/yes" category occurred in 22.6% of the items; (f) a net increase in compliance occurred across all items; (g) the percentage of affirmative marks

and the "compliance change score" improved in each broad category, and results did not vary by category; (h) the student's disability category was not a determining factor in the "compliance change score;" and (i) the majority of regions improved in the percentage of affirmative marks and the "compliance change score."

Based on the qualitative data, implementation of the model led to (a) improved understanding of IDEA's transition requirements, (b) greater student involvement in transition planning, and (c) improved interagency and interdisciplinary collaboration. Specific outcomes from participation in the model included (a) IEP meetings focusing on students' strengths, (b) enhanced parental participation in IEP meetings, (c) improved compliance with IDEA transition requirements, and (d) emergence of positive perceptions concerning the abilities of students with disabilities. Challenges associated with the model included the need for (a) stronger administrative and teacher support to implement the model and (b) an extensive commitment of time and money. The primary practices implemented during the model were revising forms and training school staff on how to complete the new forms.

The literature contains limited empirical data on the extent to which the model investigated in this study improves compliance with IDEA 1997 transition requirements and the outcomes of the model. Yet, such information is important considering that Congress has mandated transition planning in IDEA to address concerns that emerged from studies on poor post-school outcomes of individuals with disabilities (Furney et al., 1997; Shafer & Rangasamy, 1995). According to Kohler and Field (2003) and Williams and O'Leary (2001), many states have been cited for noncompliance in some aspect of IDEA transition requirements. Descriptions of the content, frequency, effectiveness, and

intervention strategies identified in this study will benefit educational practitioners, state departments of education, parents of students with disabilities, students with disabilities, as well as pre-service instructional personnel as they strive to improve compliance with the transition mandates of IDEA, and ultimately improve students' post-school outcomes.

## Discussion of Findings

Historically, the outcomes for students with disabilities transitioning from school to work have been poor (Devlieger & Trach, 1999; Geenen et al., 2001; Lehmann et al., 1999; National Council on Disabilities, 2000a). As a result, Congress mandated transition planning as part of IDEA starting in 1990 (Furney et al., 1997; Shafer & Rangasamy, 1995). The Transition Outcomes Project purports to assist school personnel in developing transition-focused IEPs that meet federal mandates and that may ultimately improve student outcomes (O'Leary, 2000b). This study investigated the effectiveness of the Transition Outcomes Project currently used in Michigan (and renamed the Michigan Transition Outcomes Project). Even though the model has been implemented in numerous states around the nation, to date, no empirical evidence has been published to show whether this model is truly effective. Hence, the importance of the present study.

As one considers these findings, it is important to remember that the Michigan Transition Outcomes Project was one piece of a larger transition initiative implemented in the state. The data for the regions participating in the Michigan Transition Outcomes Project reported on here were also part of this larger statewide transition initiative. Therefore, the Michigan Transition Outcomes Project cannot be considered an independent variable in a study in which other independent variables were controlled. Because of this

context, at times the key contact personnel would refer to the statewide transition initiative; however, they were reminded to focus only on activities from the Michigan Transition Outcomes Project. In addition, during this transition initiative the state was using *The Taxonomy for Transition Programming* (Kohler, 1996) as a foundation for transition related program development and local service planning and implementation. Therefore, it may not be coincidental that the interventions identified in Study 2 aligned with this taxonomy. Thirdly, participating regions could access resources from the state through professional development, grants, and resource materials. At times, some regions used these resources instead of developing unique interventions as strategies to address their compliance goals. Next, the *Michigan Transition Requirements Checklist* was based on the *Transition Requirements Checklist* originally created by Storms and colleagues (2000) and modified by O'Leary et al. (2001). Reliability and validity studies have not been published on this instrument; therefore, the technical soundness of this instrument at times may be in question. Finally, a suggestion for improving this instrument consists of four possible marks or responses (compared to two or three) for each student's IEP. These possible responses should include (1) yes, the student's IEP has this item and the item is completed correctly; (2) no, the student's IEP does not have this item completed, or the item is completed incorrectly; (3) this question is not applicable because of the student's age; and (4) this question is not applicable because the student is not in need of this service. By scrutinizing these four responses, the researcher can obtain a greater depth in the analyses.

Regardless of this greater context, the finding of this study's quantitative portion appears to support the conclusion that the Michigan Transition Outcomes Project is an effective method for improving compliance and promoting "best practices" in transition. The qualitative portion of this study also supports this same conclusion based on the key contact personnel perceptions on how the model influenced his or her region.

*Improvement in Compliance*

The findings of the quantitative portion of this study appear to support the conclusion that the Michigan Transition Outcomes Project is an effective method for improving compliance with IDEA 1997 transition requirements as reflected in IEPs of students over time. The majority of the participating regions demonstrated improvements in the transition components of IEPs when comparing the results of the initial review to those of the follow-up review. This improvement occurred across all disability categories. In addition, in the qualitative portion of this study, the key contact personnel reported that an outcome of using this model was improved compliance with the transition requirements of IDEA 1997. Since a vast majority of states and entities monitored by OSEP have been found to be out of compliance with IDEA transition requirements (Kohler & Field, 2003; Williams & O'Leary, 2001), and best practices implementation in some states was not occurring regularly (McMahan & Baer, 2001; Everson, et al., 2002), this improvement is a significant finding.

Having noted this increase in compliance with the transition requirements of IDEA, when looking at specific items on the checklist, patterns developed that may also be important to note. These patterns include both items that improved and items that did not improve in terms of compliance.

*Areas of Improved Compliance*

It appears that this model helped regions improve the invitation by noting that the student will be invited to the IEP meeting. Improvement was also shown in that more students actually attended the IEP meeting. This is an important finding since Everson and colleagues (2002) report that student input in transition planning is missing in many transition programs in the United States. Also, IDEA 1990 emphasizes the importance of involving students with disabilities in the planning of transition services and goals at the IEP meetings. Finally, Trach and Shelden (2000) found when a student attends the IEP meeting, there are significantly more transition outcomes listed in the student's IEPs.

Another item that this intervention seems to help improve is that the "coordinated set of activities" in the statement of needed transition services leads toward the achievement of the student's post-secondary outcomes and visions. IDEA 1990 mandates that these activities must be designed to promote movement from school to post-school activities. Given that students with disabilities did not fare as well as their nondisabled peers after secondary school in terms of being successful moving from school to post-secondary life (Benz et al., 2000; Blackorby & Wagner, 1996; Fabian et al., 1998; Taylor, 2000a; U.S. Department of Education, 1994), this is an important finding.

Another noteworthy area of increased compliance for individual items includes the IEP containing the statement of transition services needs. A statement of transition needs can help ensure that appropriate goals are included in the student's IEP (Sitlington et al., 2000). By keeping in mind the purpose of education, the student's goals are more likely obtained (Bullis, 2004).

The largest improvement in compliance was the reporting of the student's post-school outcomes at the time of the IEP meeting in terms of education/training, employment, community participation, and independent living. Wehman et al. (2001) emphasize the importance of using person-centered practices to individualize the transition planning process and outcomes. IDEA believes that this is important since the IEP must be based upon the individual student's needs, taking into account the student's preferences and interests.

*Areas of No Improvement in Compliance*

When looking at non-compliance for both reviews, even though there was improvement in this item, still the majority of students' IEPs were not in compliance with regard to a student's present level of educational performance related to post-school education/training, employment, community participation, independent living, and adult service. According to VanderPloeg and Saur (2004), the purpose of the present level of educational performance is to identify the foundation on which the rest of the IEP is developed, and state the effect of the disability on participation in the general education curriculum and attainment of postsecondary goals. There is a direct relationship between the present level of educational performance and the other components of the IEP; the

present level of performance gives baseline data to develop measurable and meaningful goals (Frasier, 1999). School personnel need to be able to use formal and informal assessments and obtain information from the student and parents to develop transition goals (Thoma, 1999; Whitney-Thomas et al., 1998). Using data driven decision-making is desirable to help the family and student with disabilities understand the student's needs and help focus on the necessary elements for successful implementation of transition programs (Doyle, 2002; Garmston, 2004; Pierce & Murray, 2004; Ramnarine, 2004).

For over two-thirds of the IEPs studied, the parent notice did not indicate that a purpose of the meeting would be to develop a statement of transition services need and/or statement of needed transition services. Since an important component of planning transition for students with disabilities is meaningful family involvement (Turnbull & Turnbull, 1993), communicating the purpose of the meeting before the meeting may make the parents better prepared for the transition planning process.

In addition, the data from this study indicate that regions actually decreased in compliance with respect to inviting agencies likely to provide or pay for services to the IEP meeting. Contrary to this data, the key contact people of some regions reported that this intervention helped school staff become more knowledgeable regarding the agencies that are able to provide services for the student, and school staff increased the frequency with which they invited agencies to participate in IEP meetings. This linkage is important because Chadsey-Rusch and Rusch (1996) report that no single agency is capable of offering the vast array of transition services and programs needed by the full range of youth with disabilities. It is important for school districts to assist students in making connections with outside agencies before graduation to help with the application process

and ensure services with the appropriate agency to help facilitate achievement towards transition goals (Dowdy, 1996; Dowdy & Evers, 1996; Karge et al., 1992).

*Perceptions of Key Contact Personnel*

Interviewing the key contact personnel from each region provided details on how the Michigan Transition Outcomes Project influenced the transition practices in their region. Looking across the dimensions of effects, results, practices, and strengths and limitations, several themes emerged. Several effects and results of the model were reported related to student involvement, parent participation, improved compliance, staff knowledge and understanding of IDEA 1997 transition requirements, and improved interagency and interdisciplinary collaboration.

*Student Involvement*

One of the positive outcomes was greater student involvement in transition planning. The students were asked about their goals and dreams, including making life choices in terms of career development, living arrangements, and community participation. This is important because research has shown that student input in transition planning is missing in many transition programs (deFur et al., 1994; Everson et al., 2002; Grigal et al., 1997; Trach & Shelden, 2000). In addition, IDEA specifies that schools must invite all students, ages 14 and older, to their transition planning meetings and base decisions upon students' interests and preferences (Powers et al., 1999). Also, when a student with disabilities attends his/her IEP meeting, many parents report that they had greater understanding of the purpose of the meeting (Martin et al., 2004). Since the IEP

meetings were student-driven and student-focused, students had an opportunity to advocate for themselves concerning their wants and desires for the future.

According to Field et al. (1997) and Palmer et al. (2004), it is important for students to learn to advocate and speak for themselves in high school classes and while self-evaluating their progress towards their post-school goals and outcomes. Advocating helps students learn to represent themselves as much as possible (Johnson & Sharpe, 2000). Practices implemented during this model to help foster student involvement included advocacy classes and night conferences for students to discuss self-determination skills and post-school options. This advocacy skill is important because the key contact people reported that, at times, staff did not think that a given student's wants and desires were obtainable. However, many times the student did accomplish the goals in his or her transition plan, leading to the realization that students with disabilities are capable of many things if the desire is acknowledged and support is present.

Several interviewees reported that during the model's implementation, IEP meetings started focusing on the strengths of each student. Wehman and colleagues (2001) emphasized the importance of using person-centered practices to individualize the transition planning process and outcomes. In the current study, the key contact people reported that the changed IEP form helped school staff focus on "transition first" because of the content and layout of the form. In many regions, the format of the transition plan was changed to discuss the students' goals and desires first. These goals and desires subsequently became the driving force for the rest of the IEP meeting.

*Parent Participation*

The key contact people reported that parents seemed to understand the transition meetings more fully and were willing to become more engaged in the process. In the reporting regions, the IEP meetings became positive and informative sessions on ways to help the student with disabilities successfully move from high school to adult life. To help facilitate family involvement, the key contact people indicated that during the implementation of this model, parent information meetings were held and written material concerning transition was mailed home or given to parents at school functions. As noted in the literature review, active family involvement is a critical factor, and is one of the best and most consistent predictors of the post-secondary adjustment of young adults with disabilities (Greene, 2003; Johnson et al., 2002). Therefore, better parent participation in meetings is a notable outcome.

*Staff Knowledge and Understanding of IDEA 1997 Transition Requirements*

Another positive outcome of the model, as reported by the interviewees, was improved staff knowledge and understanding of the IDEA 1997 transition requirements. It seemed that the word "transition" was well known; however, many staff members did not know how to improve compliance with the transition components of IDEA 1997. In the current study, participants reported that training on the transition requirements of IDEA helped increase this knowledge. In fact, many key contact people emphasized that the training of staff was a powerful force behind improved compliance. A number of practices were reported to initiate training including conferences to educate staff about

transition, meetings to brainstorm ways to help students and collect ideas for more effective collaboration, and workshops on how to write correct and compliant IEPs using the new forms. This education and training of staff is important in light of research showing that greater implementation can take place when individuals are knowledgeable about the process (Johnson 2002; Messmer, Jones, & Moore, 1998; Worthington, 2004).

*Interagency and Interdisciplinary Collaboration*

Another positive result discussed by the key contact people was improved interagency and interdisciplinary collaboration. To improve interagency collaboration, one region developed a resource directory to inform school staff about different agencies. This directory, according to region personnel, led to greater agency invitations to appropriate IEP meetings. Other key contact personnel indicated that the school staff made more of an effort to invite necessary outside agencies to IEP transition meetings. Other key contact personnel discussed how team-teaching classes and inviting middle school staff to IEP meetings improved interdisciplinary collaboration. Such collaboration is important, considering that many different people and agencies are involved in facilitating a transition plan. No single agency or school is capable of offering the full array of transition services and programs needed by youth with disabilities (Chadsey-Rusch & Rusch, 1996). Dowdy (1996) and Karge and colleagues (1992) recommended that referrals to adult agencies occur before graduation so the school can assist with the application process and ensure that the appropriate agency was chosen to help the unique needs of each student. In addition, IDEA 1997 strongly encourages collaboration among schools and community agencies in the design and delivery of transition services.

*Reported Strengths of the Model*

The key contact people reported that a strength of the model consisted of comparing the quantitative data from the initial to the follow-up review. Participants described that being able to look at these data permitted each region to focus on areas of weakness while celebrating areas of strength. This finding aligns with research showing that data can be helpful when making programmatic decisions (Doyle, 2002; Petersen & Young, 2004). Also, by comparing data over time, key contact personnel were able to see what areas needed to be improved and focus their limited resources on these specific areas through staff development or other means.

Another strength mentioned by the interviewees was that ownership of the program and its improvement was at the local level. Specifically, regions liked the opportunity to collaborate in groups within their district to develop practices that fit their unique needs. Ochoa et al. (2004) and Garmston (1999) report satisfaction increases when collaborating in effective groups and groups can help individuals become accountable to a program. In addition, staff who have direct input into the design of the outcomes are less resistant to change and may be more able to identify potential problems (Koch, Cairns, & Brunk, 2000; Pierce & Murray, 2004).

Finally, the key contact people reported that the IEP changed from a deficit-driven to an outcome-oriented process that took into account the students' preferences and needs. Participants commented that by focusing on an individual student's strengths, the transition plan revealed where improvements were needed and engaged the parent and student in the process of making the necessary changes. All of the strengths that were

reported by the key contact people are elements of effective transition programming (Hasazi et al., 1999; Kohler & Fields, 2003).

*Reported Limitations of the Model*

Despite these significant positive findings, some negatives aspects emerged, especially related to the use of time and money. Specifically, key contact personnel noted that teachers were taken away from their classes to attend training on how to use the model. Further, respondents emphasized the amount of time it took to implement the Michigan Transition Outcomes Project. These regions did not collect the IEP data, however, since they were involved in a pilot initiative to implement the model. Personnel from the Transition Services Project of Michigan collected the initial and follow-up IEP data for these regions. This collection of data is an important distinction as regions that implement the model in the future will most likely have to commit additional time and personnel to collect their own data. In addition, there may be a bias about school personnel collecting their own data as opposed to using an outside, unbiased source who is not familiar with local staff or students and does not have a stake in the outcome.

Further, many interviewees discussed the frustration they felt due to a lack of administrative support, emphasizing that this support is necessary to successfully implement this model. According to Miles (2001) and Fawcett (2004), administrators should use their resources to support reform efforts. The key contact people reported that often the administrators had the power to implement suggested changes in the transition planning process, but without acting on the suggestions, the work conducted via the model was sometimes fruitless. In summary, interviewees recommended that before a

region or district decides to implement the model, they should consider the level of administrative support.

## Limitations of the Study

This study is noteworthy in that it incorporated quantitative and qualitative measures in a mixed research design to study the effectiveness of the Michigan Transition Outcomes Project. By using these two approaches, greater depth is expected (Johnson & Christensen, 2004; Patton, 1990). Despite this approach, some limitations deserve mention.

First, the study was conducted in Michigan and, therefore, does not automatically generalize to other states. However, the random sample provides generalizability to other regions or districts within the state. Yet, generalizability to other districts within Michigan may be problematic because of the reduced sample of students' IEPs from the initial to the follow-up review. Due to the number of years it takes to implement the model, some students dropped out, moved, graduated, or otherwise left the school system. Therefore, the original numbers were lower in the follow-up review. To give more power to the analysis, a greater number of IEPs of students could have been reviewed. In addition, bias may have occurred concerning IEPs that were not in the follow-up review since the missing IEPs of students could have been exceptional or poor in terms of compliance with IDEA 1997 transition components.

Second, the findings in the qualitative study are limited in generalizability because of the nature of the subject sample. That is, the participants were eight key contact personnel from Michigan regions who implemented this model. The views of this

limited group may not be representative of all of the individuals who participated in the model within the implementing regions.

Further, social desirability is a concern when using interviews in research—i.e., some participants may respond to questions based on what they perceive is expected of them or what they deem to be the socially or politically correct response (Patton, 1990). Thus, although participation was voluntary, the validity of the study may be limited by the bias inherent in the data collection methods used.

Third, no documentation exists that shows all participating regions completed all of the steps associated with the Michigan Transition Outcomes Project. For example, the writing of the formal *Transition Outcomes Improvement Process Action Plans* was not documented in some of the participating regions. Lack of this plan is a limitation because there is no written record concerning these specific region's goals and projected outcomes during implementation of this model.

Fourth, the Michigan Transition Outcomes Project was one part of a statewide transition initiative. It is not possible to conclude which effects are attributable exclusively to the model since the participating regions were also participants in numerous other transition-related activities. Consequently, qualitative data could not be used explicitly to explain the quantitative results. This research represents two distinct studies. Study 1 sought to determine whether improved compliance was demonstrated, whereas Study 2 gathered information regarding specific views concerning the Michigan Transition Outcomes Project. Further, this study's quantitative piece was collected at a certain point in time, while the qualitative portion was completed a few months after the

conclusion of the model. Thus, the participants' recollections to distinguish between the model and other transition related activities could be challenging.

## Implications for Future Research

In general, the results of this study provide support for the hypothesis that the Michigan Transition Outcomes Project improved compliance with the IDEA 1997 transition components, which in turn provides support for the effectiveness of the Transition Outcomes Project. A replication of the study with regions and districts that were not involved in the statewide transition initiative could potentially lead to different results.

The study provides new information with regard to perceptions of key contact participants regarding the model as well as the initial and follow-up analysis of the students' IEPs in terms of the IDEA transition components. Many unanswered questions remain, including the impressions of other participants, actual post-school results of students with disabilities who were part of this model, and the necessity of implementing the entire model in order for improvement in compliance to occur.

Future research is needed to investigate the perceptions of various individuals involved with the model. Comparisons of attitudes could provide important information as to the effectiveness of this model. Furthermore, additional information is needed regarding why some regions improved compliance to a greater degree than other regions using the same model, thus providing valuable information on successful strategies used in the regions with higher compliance. Possible research concerning this difference in compliance could also focus on the varying support of the district's administration and teachers in individual regions.

In addition, a factor analysis of the broad content areas of the IEP—including (a) participants in the IEP meeting, (b) invitation, and (c) content of the IEP—may be an interesting supplementary study. This study would reveal whether certain items within these three broad IEP content categories had a significant increase or decrease in compliance. With this information, a district interested in implementing this model could gain knowledge of helpful strategies focusing on specific items.

Future research should also address whether it is necessary to complete all the steps of the model in order to achieve improved compliance. The literature reports that data-driven decision-making and participatory evaluation are desired factors for successful implementation of programs (Doyle, 2002; Garmston, 2004; Pierce & Murray, 2004; Ramnarine, 2004). It would be important to determine whether regions that did not participate in the model, yet changed their IEP form to align with IDEA transition requirements and held training for staff on how to complete these forms, also showed increased compliance. The results of such studies could serve regions considering adoption of the model.

This research demonstrated some differences in the findings between the quantitative and qualitative studies. In order to investigate possible differences, it would be interesting to conduct a study containing both of these types of research. With this combined approach, triangulation of the results would provide additional information concerning the effectiveness of the model.

Finally, it is important to conduct a follow-up study to learn whether the changes implemented during the model are still in use, if other transition-focused programs had

been developed, and if, importantly, the effects of these implemented practices improved post-school results for students with disabilities.

## Recommendations

This study addressed the important topic of improved compliance with IDEA 1997 transition requirements, which is expected to lead to implementation of effective "best practices" and ultimately improve the outcomes of students with disabilities (O'Leary, 2000b). Many of the participants reported that the model had a positive impact on their district; however, districts interested in this model need to consider the model's limitations. School districts interested in improving compliance with IDEA 1997 transition requirements should start by reflecting on their district's IEP and notice forms. Changes in these forms may be necessary to comply fully with IDEA transition requirements and subsequently to help restructure the IEP form to focus on transition. However, just changing these forms is not sufficient. Respondents suggested that training for school staff in such areas as the transition requirements of IDEA and how to write correct and compliant IEPs using the new forms may also be necessary. Finally, the interviewees reported that supervision is required to ensure that the transition IEP plans are effectively written and adhere to the IDEA transition requirements.

Key contact personnel recommended that before beginning this comprehensive process, school districts acknowledge that it takes years to implement. Nevertheless, they reported that the outcomes were rewarding for school staff, parents, and students with disabilities. Further, they emphasized that obtaining full administrative support is necessary before starting. Specifically, it is critical that administrators understand the focus of

the model and provide the necessary support in terms of time and money to implement the process. In addition, it was advised by the participants that each district appoints a lead person and give this person enough time and opportunity to implement the model. Further, school districts needs to decide whether it is necessary to implement all steps in the model to improve transition components on a student's IEP, or whether they can simply change the forms to align with IDEA transition requirements, train school staff to complete the forms correctly, and monitor these forms to ensure compliance with IDEA transition components.

Both the participants of this study and existing research (Blackorby & Wagner, 1996; Field et al., 1997; Johnson et al., 2002; Wehman et al., 2001) state that knowledge of IDEA transition components, participation of families, involvement of students with disabilities in planning transition, and adopting an outcomes-focused process are important while working with students with disabilities as they transition from school to adult life. These practices should not be new to individuals beginning their careers in the teaching field. Teacher-training institutions should increase attention to successful transition for students with disabilities from school to adult life and compliance with IDEA. Specifically, they should focus on effective collaboration with school staff, outside agencies, parents, and the students. In addition, they should educate future teachers about how to write an effective and compliant transition plan for students with disabilities. Likewise, colleges and universities specializing in special education that are training teachers to work with students at the high school and middle school level should include or expand the focus and discussion of "best practices" in transition planning.

# Appendix A

*Michigan Transition Requirements Checklist*

**Transition Services Project**
**Transition Requirements Checklist***

*Reviewer* _____ *District* _____

*Student No.* _____ *Student's Name* _____ *Age at IEP* _____

*Primary Disability* _____ *DOB* _____ *Grade Level* _____ *IEPT Date* _____

1. Are the student's desired **post-school outcomes/visions** (in the areas of education/training, employment, community participation, independent living and adult services) clearly identifiable from information appearing on his/her IEPT report? **(Not Regulation Based)**

   - education/training Yes_____ No_____
   - employment Yes_____ No_____
   - community participation Yes_____ No_____
   - independent living Yes_____ No_____

   **Criterion:** Individualized Education Program Team (IEPT) report information clearly conveys what this student's post-school outcomes were at the time his/her IEPT meeting was conducted.

   **Comments:**

**Participants in the IEPT Meeting**

*When the purpose of the meeting is the consideration of transition services:*

2. Did the public agency invite the student? [300.344 (b) (1) (i) (ii) (iii)]

   Yes_____ No_____

   **Criterion:** There is documentation that the student was invited (see district's invitation form) **or** the student's name appears in the "IEPT Meeting Participants in Attendance" section of the IEPT report.

   **Comments:**

3. Did the student attend the IEPT meeting? **(Not Regulation Based)**

   Yes_____ No_____

**Criterion:** The student's name appears in the "IEPT Meeting Participants" section of the IEPT report.

**Comments:**

4. Did the public agency take steps to ensure that the student's preferences were considered in the development of the IEPT report? [300.344 (b) (2)]

Yes_____ No_____

**Criterion:** There is documentation that the student attended the IEPT meeting **or** preference and interest information clearly related to the student's post-school outcomes appears on the IEPT report.

**Comments:**

**Note: Item 5 is only applicable if one of the purposes of the meeting was to develop a "statement of needed transition services". (i.e. the student is age 16 or older)**

5. Did the public agency invite a representative of any other agency that is likely to be responsible for providing or paying for transition services? [300.344 (b) (3) (i)]

Yes_____ No_____

**Criterion:** There is documentation that an agency was invited (see district's invitation form) **or** an agency person's name appears in the "IEPT Meeting Participants in Attendance" section of the IEPT report.

**Comments:**

**Parent and Student Participation**

6. For students of any age, was parent notice (invitation) provided? [300.345 (a) (b) (c)]

Yes_____ No_____

**Criterion:** There is documentation that the parent(s) was invited. (See district's invitation form.)

**Comments:**

7. Does the parent notice (invitation) indicate that one of the purposes of the meeting will be the development of: (a) "a statement of transition service <u>needs</u>" and **for a student beginning at age 16** (b) "a statement of needed transition <u>services</u>". [300.345 (b) (2) (i) & (b) (3) (i)]
   (a) for a student beginning at age 14.....

- a statement of transition service needs Yes_____ No_____

(b) for a student beginning at age 16, both of the following.....

- a statement of transition service needs, and Yes_____ No_____
- a statement of needed transition services Yes_____ No_____

**Criterion:** The district's notice (invitation) specifically states (for a student 14 years old) that one of the purposes of the IEPT meeting will be the development of a "statement of transition service needs".
The district's notice (invitation) specifically states (for students 16 years and older) that one of the purposes of the IEPT meeting will be the development of a "statement of transition service needs" and the development of a "statement of needed transition services".

**Comments:**

8. Does the parent notice (invitation) indicate that the public agency will invite the student? [300.345 (b) (2) (ii) & (b) (3) (ii)]

Yes_____ No_____

**Criterion:** The district's notice (invitation) states that the student is invited to the IEPT meeting.

**Comments:**

9. Does the parent notice (invitation) indicate the date, time, and location of the meeting and who will be invited? [300.345 (b) (1) (i)]

- date Yes_____ No_____
- time Yes_____ No_____
- location Yes_____ No_____
- who will be invited Yes_____ No_____

**Criterion:** The district's notice (invitation) identifies all of the following: date of meeting, time of meeting, location of meeting and who is invited to the meeting.

**Comments:**

10. Does the parent notice (invitation) inform the parents **that they** may invite other individuals who have knowledge or special expertise regarding their child, including related services personnel, as appropriate? [300.345 (b) (1) (ii)]

Yes_____ No_____

**Criterion:** The district's notice (invitation) informs parents that other individuals may be invited to the IEPT meeting by them.

**Comments:**

**Content of the IEP**

11. Does the section containing the present levels of educational performance information consist of information which **in any way** relates to this student's post-school education/training, employment, community participation, independent living and adult service **outcomes/visions? (Not Regulation Based)**

- education/training Yes_____ No_____
- employment Yes_____ No_____
- community participation Yes_____ No_____
- independent living Yes_____ No_____

**Criterion:** Information in the present levels of educational performance (PLEP) section of the IEPT report relates to the student's post-school "education/training", "employment", community participation" and "independent living" outcomes.

**Comments:**

**Statement of Transition Services Needs (STSN)**

12. Does the IEP include a statement of transition services **needs** that specifies the student's courses of study? [300.347 (b) (1)]

Yes_____ No_____

**Criterion:** The student's course of study is identified on the IEPT report.

**Comments:**

**Statement of Needed Transition Services (SNTS)**
*If the student is 16 years of age, or younger if appropriate.* ***If NOT, go to 18!***

13. Does the IEP include a statement of needed transition **services**? [300.347 (b) (2)]

Yes_____ No_____

**Criterion:** The IEPT report includes a "statement of needed transition services".

**Comments:**

14. Does the statement of needed transition services consider: [300.29 (a) (3) (i)-(v)]

    a. instruction: Addressed_____ Not Addressed_____

    b. related services: Addressed_____ Not Addressed_____

    c. community experiences: Addressed_____ Not Addressed_____

    d. development of employment and other post-school living objectives:
    Addressed_____ Not Addressed_____

    e. daily living skills: Addressed_____ Not Addressed_____

    f. a functional vocational evaluation: Addressed_____ Not Addressed_____

    **Criterion:** There is an entry for each of the following transition areas: "instruction", "related services", "community experiences", "employment and adult living", "daily living skills" and "functional vocational evaluation"; **or** there is a "not needed" response of some type entered.

    **Comments:**

15. Are the activities in the statement of needed transition services presented as a "coordinated set of activities"? [300.29 (a)]

    Yes_____ No_____

    **Criterion:** A person or an agency (in addition to the district) is assigned a transition service activity to carry out.

    **Comments:**

16. Does the "coordinated set of activities" in the statement of needed transition services lead toward the achievement of this student's post-school outcomes/visions? [300.29 (a)(1)]

    Yes_____ No_____

    **Criterion:** The "coordinated set of activities" identified on the IEPT report are directly related to the achievement of the student's post-school outcomes. (A minimum of one activity must relate.)

    **Comments:**

17. If appropriate, does the statement of needed transition services include a statement of interagency responsibilities or any needed linkages? [300.347 (b) (2)]

Yes_____ No_____ NA_____

**Criterion:** A non-school agency's responsibility or linkage is identified on the IEPT report **or** "DNA" or a similar entry appeared on the IEPT report.

**Comments:**

18. Is the statement of transition service needs and, for students 16 years of age or older, the statement of needed transition services reviewed at least annually? {300.347 (b) (1)]

Yes_____ No_____

**Criterion:** Current IEPT report and previous IEPT report dates do not exceed the twelve (12) month timeline.

**Comments:**

19. Does the IEP include a statement that at least one year before the student reaches the age of majority under state law, that the student has been informed of the rights under Part B that will transfer to him/her when she/he reaches the age of majority? [300.347 (c)]

Yes_____ No_____

- A=date of student's 18th birthday--- _____ Mo/Day/Year
- B=date of first transfer of rights notice--- _____ Mo/Day/Year

**Criterion:** Age of majority notification is made within the rule specified timeline.

**Comments:**

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- *O'Leary, E., Lehman, M. and Doty, D. 2000. Adapted from: The Individuals with Disabilities Education Act of 1997. Transition Services Requirements: A Guide for States, Districts, Schools, Universities and Families (J. Storms, E. O'Leary, and Jane Williams – inn press 2000)*

# Appendix B

## Sample Size Determination Chart

## Option I
## Sample Size Determination Chart

| Universe | 90/10 | Universe | 90/10 | Universe | 90/10 |
|---|---|---|---|---|---|
| 10 | 9 | 160 | 48 | 480 | 59 |
| 15 | 12 | 170 | 49 | 500 | 60 |
| 20 | 16 | 180 | 49 | 550 | 60 |
| 25 | 18 | 190 | 50 | 600 | 61 |
| 30 | 21 | 200 | 51 | 650 | 61 |
| 35 | 23 | 210 | 51 | 700 | 62 |
| 40 | 25 | 220 | 52 | 750 | 62 |
| 45 | 27 | 230 | 52 | 800 | 62 |
| 50 | 29 | 240 | 53 | 900 | 63 |
| 55 | 31 | 250 | 53 | 1000 | 64 |
| 60 | 32 | 260 | 54 | 1100 | 64 |
| 65 | 32 | 270 | 54 | 1200 | 64 |
| 70 | 35 | 280 | 55 | 1300 | 64 |
| 75 | 36 | 290 | 55 | 1400 | 65 |
| 80 | 37 | 300 | 55 | 1500 | 65 |
| 85 | 38 | 320 | 56 | 1600 | 65 |
| 90 | 39 | 340 | 57 | 2000 | 66 |
| 95 | 40 | 360 | 57 | 4000 | 67 |
| 100 | 41 | 380 | 58 | 5000 | 67 |
| 110 | 42 | 400 | 58 | 10,000 | 67 |
| 120 | 43 | 420 | 58 | 20,000 | 67 |
| 130 | 45 | 440 | 59 | 30,000 | 68 |
| 140 | 46 | 460 | 59 | 50,000 | 68 |
| 150 | 47 | | | | |

**Universe:** Total number of students receiving special education*

**90/10:** 90% Confidence/ 10% Sampling error

## Option 2: Five Percent (5%) of Universe

**Example: Five Percent ( 5%) Sample Selection Process***

| Unit | Universe | Percent | 5% Sample | 90/10 |
|---|---|---|---|---|
| ISD | 200 | 40% | 10 | 24 |
| LEA#1 | 100 | 20% | 5 | 12 |
| LEA#2 | 100 | 20% | 5 | 12 |
| LEA#3 | 100 | 20% | 5 | 12 |
| | 500 | 100% | 25 | 60 |

**Parent Survey:** The sample size of the "Parent Survey" must be at least twenty-five percent (25%) of the student stratified random sample. If the twenty-five (25%) sample size results in less than ten (10) parent surveys, a minimum of ten (10) surveys must be completed.

*** Based on the most recent December First (1st) count.**

Appendix C

*Transition Outcomes Improvement Process Action Plan* Sample

# TRANSITION OUTCOMES IMPROVEMENT PROCESS
## ACTION PLAN

| Question | Current % | Goal % | Final % | Strategies for achieving goal | By Whom | Completion Date | Technical Assistance Needed |
|---|---|---|---|---|---|---|---|
| 1. Are the student's desired post-school outcomes clearly identifiable from information appearing on his/her IEPT report? (Not Regulation Based) | | | | | | | |
| 11. Does the present levels of educational performance section contain information which in any way relates to this student's post-school outcomes/visions? (Not Regulation Based) | | | | | | | |
| 16. Do the "coordinated set of activities" in the statement of needed transition services lead toward the achievement of any of this student's post-school outcomes/visions? [300.29 (a)(1)] | | | | | | | |
| 2. Did the public agency invite the student? [300.344 (b)(1)(I)(ii)(iii)] | | | | | | | |

## TRANSITION OUTCOMES IMPROVEMENT PROCESS
## ACTION PLAN

| Question | Current % | Goal % | Final % | Strategies for achieving goal | By Whom | Completion Date | Technical Assistance Needed |
|---|---|---|---|---|---|---|---|
| 3. Did the student attend the IEPT meeting? (Not Regulation Based) | | | | | | | |
| 4. Did the public agency take the steps to ensure that the student's preferences and interests were considered in the development of the IEPT report? [300.344 (b)(2)] | | | | | | | |
| 5. Did the public agency invite a representative of any other agency that is likely to be responsible for providing or paying for transition services? [300.344 (b)(3)(I)] | | | | | | | |
| 6. For students of any age, was parent notice (invitation) provided? [300.345 (a)(b)(c)] | | | | | | | |

## TRANSITION OUTCOMES IMPROVEMENT PROCESS
## ACTION PLAN

| Question | Current % | Goal % | Final % | Strategies for achieving goal | By Whom | Completion Date | Technical Assistance Needed |
|---|---|---|---|---|---|---|---|
| 7a. Does the parent notice (invitation) indicate that one of the purposes of the meeting will be the development of: (a) "a statement of transition service needs?" [300.345 (b)(2)(I)] | | | | | | | |
| 7b. For students aged 16 and older, does the parent notice (invitation) indicate that the purposes of the meeting will be the development of: (a statement of transition service needs"; (b)" a statement of needed transition services?" [300.345 (b)(3)(I)] | | | | | | | |
| 8. Does the parent notice (invitation) indicate that the public agency will invite the student? [300.345 (b)(2)(ii)&(b)(3)(ii)] | | | | | | | |
| 9. Does the parent notice (invitation) indicate the date, time and location of the meeting and who will be invited? [300.345 (b)(1)(I)] | | | | | | | |

## TRANSITION OUTCOMES IMPROVEMENT PROCESS
## ACTION PLAN

| Question | Current % | Goal % | Final % | Strategies for achieving goal | By Whom | Completion Date | Technical Assistance Needed |
|---|---|---|---|---|---|---|---|
| 10. Does the parent notice (invitation) inform the parents that they may invite other individuals who have knowledge or special expertise regarding their child, including related services personnel, as appropriate? [300.345 (b)(1)(ii)] | | | | | | | |
| 12. Does the IEP include a statement of transition services needs that specifies the student's course of study? [300.347 (b)(1)] | | | | | | | |
| 13. Does the IEP include a statement of needed transition services? [300.347 (b)(2)] | | | | | | | |
| 14. Does the statement of needed transition services consider: instruction related services, community experiences, employment, daily living skills, and evaluation? [300.29 (a)(3)(I)-(v)] | | | | | | | |

# TRANSITION OUTCOMES IMPROVEMENT PROCESS
# ACTION PLAN

| Question | Current % | Goal % | Final % | Strategies for achieving goal | By Whom | Completion Date | Technical Assistance Needed |
|---|---|---|---|---|---|---|---|
| 15. Are the activities in the statement of needed transition services presented as a "coordinated set of activities"? [300.29 (a)] | | | | | | | |
| 17. If appropriate, does the statement of needed transition services include a statement of interagency responsibilities or any needed linkages? [300.347 (b)(2)] | | | | | | | |
| 18. Is the statement of transition service needs and, for students 16 years of age or older, the statement of needed transition services reviewed at least annually? [300.347 (b)(1)] | | | | | | | |
| 19. Does the IEP include a statement that at least one year before the student reaches the age of majority under state law, that the student has been informed of the rights under Part B? [300.347 (c)] | | | | | | | |

Appendix D

Commitment/Support Letter From The
Michigan Transition Services Project

**Transition Services Project**
*702 Lake Lansing Road, Suite D• East Lansing, Michigan 48823*
*Phone (517) 332-3587 • Fax (517) 332-3956*

**Jan Yoak-Newman**
**Project Director**

**Laurie Bradley**
**Project Coordinator**

June 4, 2003

Dr. Paula Kohler
Ms. Jane Finn
Western Michigan University
Department of Educational Studies
3506 Sangren Hall
Kalamazoo, MI 49008

Dear Dr. Kohler and Ms. Finn:

In order to facilitate the study that Ms. Finn is currently working on to determine the effectiveness of the Transition Services Project's (TSP) implementing the Michigan Transition Outcomes Model, I will contact key individuals from each pilot site for the following purpose:

- to get contact information from each pilot site contact person so Ms. Finn can personally communicate with each one regarding implementation of the model in each site.

Should you need any further information, do not hesitate to call.

Sincerely,

Jan Yoak-Newman

***Fiscal Agent***
***Ionia County Intermediate School District***
*2191 Harwood Road • Ionia, Michigan 48846*
*Phone (616) 527-4900 • Fax (616) 527-4731*

W. Scott Hubble
Asst Supt./Special Education

George W. Hubbard
Superintendent

Michael A. Keast
Deputy Superintendent

*Transition Services Project is funded by a Michigan Department of Education State Discretionary Project and U.S. Office of Special Education Grant.*

Appendix E

Key Contact Personnel Interview

**KEY CONTACT INTERVIEW**
**ON THE**
**MICHIGAN TRANSITION OUTCOMES MODEL**

I am studying the effects of the Michigan Transition Outcomes Project for my dissertation. Dr. Paula Kohler who is an Associate Professor at Western Michigan University is supervising the dissertation. The purpose of this interview is to gather information on your experiences with the Michigan Transition Outcomes Project.

There are no right or wrong answers to the questions I will ask. Please consider this interview as a chance to share your views regarding this project. Please be as descriptive as you can.

I am audio taping this discussion to make sure that I don't miss any important comments. The tape is for my records only. It will not be available to anyone other than my advisor and me. The tape will be destroyed when my dissertation is completed.

Before I start asking questions, I want to review the steps of the Michigan Transition Outcomes Project:

In STEP 1, Dr. Ed O'Leary provided training on the steps involved in the Michigan Transition Outcomes Project. During this training, Ed presented the transition requirements of IDEA, provided the conceptual model of this project, and provided training on the *Transition Requirements Checklist.* He also introduced the people who would review the IEPs selected from your region and then provide assistance during the implementation of your region's action plan.

During STEP 2, the Michigan Transition Outcomes Project personnel reviewed the transition components of randomly selected IEPs in your region using the *Transition Requirements Checklist.*

In STEP 3, the Transition Outcomes Project personnel provided the results of the IEP review. Using these data, your region's team identified practices, strategies, and procedures they wanted to implement to address specific target areas.

During STEP 4, regions implemented the plans.

In STEP 5, the Transition Outcomes Project personnel reviewed the IEPs a second time. Then they returned to the regions to report changes from the first review and discuss next steps.

**QUESTIONS:**

1. First, I want to ask you about the effects of the Michigan Transition Outcomes Project on the transition planning process. By effects, I mean changes that resulted in the transition planning process in your district because of your participation in the project. When we talk about effects, consider effects on students, parents and families, teachers, administrators, and the transition planning process as a whole. Effects might relate to their knowledge about transition planning, their behavior in IEP meetings, or other aspects of the transition planning process.

a. Let's start with the positive effects or changes. Would you say participation in the Transition Outcomes Project created positive effects or changes on the transition planning process? What were these changes?

b. What about negative effects or changes? Did any negative effects or changes occur? What were they?

*Probes will follow up each question to elicit clarification and or explanation.*

2. Next, I want to discuss the results you think occurred from participation in the Transition Outcomes Project. By "results," I mean the outcomes regarding transition planning that you think were achieved because of participation in the project. Consider things like student and family involvement or attendance, agency collaboration, transition-focused IEP meetings, and other aspects of transition planning.

Other than the effects we discussed before, what do you think happened as a result of your region's participation in the Transition Outcomes Project? In other words, what was accomplished through participation in the project? What impact did the project have on the transition planning process?

a. Let's start with the positive results or outcomes. Would you say participation in the Transition Outcomes Project created positive results or outcomes on the transition planning process? What were these results?

b. What about negative results or outcomes? Did any negative results or outcomes occur? What were they?

*Probes will follow up each question to elicit clarification and/or explanation.*

3. Next, I want to talk about strategies, practices, or procedures that were implemented during participation in the Michigan Transition Outcomes Project. I am interested in hearing about changes in practice-- new practices your district implemented or things you did differently between the first review of the IEPs and second review of the IEPs. For example, some districts implemented action plans that included such practices as changing the IEP form, scheduling meetings differently, or teaching students self-determination skills.

1. Were any transition planning practices or procedures revised during implementation of the model?

2. Were any new practices developed or implemented?

3. Did you develop any new forms or revise any existing forms? Please describe these changes.

4. Did you collaborate differently? How? With whom?

5. Did you provide educational training for your staff, students, and/or families that focused on transition? Please describe this training.

6. Did you develop any new curriculum? Explain.

7. Were students with disabilities given any new assessments that focused on transition? Describe.

8. Did you develop any new communication tools to inform parents, students, and /or teachers about the transition planning process? Please describe these tools.

9. Is there anything else you'd like to add about practices or procedures that resulted from implementation of the Michigan Transition Outcomes Project?

*Probes will follow up each question to elicit clarification and/or explanation*

4. Finally, I want to discuss the strengths and limitations of the Michigan Transition Outcomes Project.

a. What would you consider the strengths of this model?

b. What would you consider limitations of this model?

c. If someone from another school asked you about this model, what would you tell him or her?

d. Would you implement this model again?

e. What, if anything, what would you do differently? Why?

f. What, if anything, would you keep the same? Why?

Appendix F

Invitation to Participate

**Western Michigan University**
**Department of Educational Studies**

Principal Investigator: Dr. Paula Kohler
Student Investigator: Jane Finn
Title of the Study: Effects of the Michigan Transition Outcomes Model

You are invited to participate in a research project entitled *Effects of the Michigan Transition Outcomes Model.* The purpose of the research is to investigate how this model was implemented in various localities and participants' perceptions of the outcomes. This research is being conducted as part of the dissertation requirements for Jane Finn.

If you agree to participate, you will be interviewed by the student investigator, Jane Finn. The interview will be conducted by telephone and should last approximately 20 minutes. You will be asked to provide information about the Michigan Transition Outcomes Project, strategies which your region incorporated during the implementation of this model, and your perceptions of this model's effectiveness.

All of the information collected from you is confidential. This means that your name or school's name will not appear with any information recorded. This interview will be audio taped, but this tape is for our records only. It will not be available to anyone else and the tape will be destroyed when the research is completed.

You may refuse to participate, decline to discuss any introduced topic, or quit at any time during the study without prejudice or penalty. If you have any questions, you may contact either Dr. Paula Kohler at 269-387-5955 or Jane Finn at 616-335-6156. You may also contact the Chair, Human Subjects Institutional Review Board (269-387-8293), or the Vice President for Research (269-387-8298) if questions or problems arise during the course of the study.

This consent document has been approved for use for one year by the Human Subjects Institutional Review Board as indicated by the stamped date and signature of the board chair in the upper right corner. You should not participate in this project if the stamped date is more than one year old.

You signature below indicates that you have read and/or had explained to you the purpose and requirements of the study and that you agree to participate.

_____ _____
Signature Date

**Best time to be contacted is:**

Day:

Time:

Telephone number:

# REFERENCES


Abderholden, S., & Jordon, D. (1999). IDEA 1997 final regulations released. *The Exceptional Parent, 29*, 56.

Asselin, S., Todd-Allen, M., & deFur, S. (1998). Transition coordinators. *Teaching Exceptional Children, 30*, 11-15.

Baer, R., Simmons, T., & Flexer, R. (1996). Transition practice and policy compliance in Ohio: A survey of secondary special educators. *Career Development for Exceptional Individuals, 19*, 61-71.

Bakken, T., & Kortering, L. J. (1999). The constitutional and statutory obligations of schools to prevent students with disabilities from dropping out. *Remedial and Special Education, 20*(6), 360-366.

Battle, D., Dickens-Wright, L., & Murphy, S. (1998). How to empower adolescents: Guidelines for effective self-advocacy. *Teaching Exceptional Children, 30,* 28-33.

Benz, M. R., Johnson, D. K., Mikkelsen, K., & Lindstrom, L. (1995). Improving collaboration between schools and vocational rehabilitation: Stakeholder identified barriers and strategies. *Career Development for Exceptional Individuals, 18*, 133-144.

Benz, M. R., Lindstrom, L., & Yovanoff, P. (2000). Improving graduation and employment outcomes of students with disabilities: Predictive factors and student perspectives. *Exceptional Children, 66*(2), 509-529.

Berg, B. L. (2004). *Qualitative research methods for the social sciences* (5th ed.). Boston: Pearson.

Blackorby, J., & Wagner, M. (1996). Longitudinal post-school outcomes of youth with disabilities: Findings from the National Longitudinal Transition Study. *Exceptional Children, 62*(2), 399-413.

Blalock, G., Kochhar-Bryant, C. A., Test, D. W., Kohler, P, White, W., Lehmann, J., Bassett, D., & Patton, J. (2003). The need for comprehensive personnel preparation in transition and career development: A position statement of the Division on Career Development and Transition. *Career Development for Exceptional Individuals, 26*, 207-223.

Bounds, B. (1997). Should special education students be paid for vocational training? *CEC Today, 3*(9), 9.

Brolin, D. E., & Loyd, R. J. (2004). *Career development and transition services: A functional life skills approach.* Upper Saddle River, NJ: Prentice Hall.

Bullis, M. (2004). Critical transition issues and future direction. In D. E. Brolin & R. J. Loyd (Eds.), *Career development and transition services: A functional life skills approach* (pp. 453-472). Upper Saddle River, NJ: Prentice Hall.

Burgess, R. B. (1985). Key informants and the study of comprehensive school. In R. Burgess (Ed.), *Strategies of educational research: Qualitative methods* (pp. 23-54). London: The Falmer Press.

Burrell, S., & Warboys, L. (2000, July). *Special education and the juvenile justice system.* Washington, DC: U.S. Department of Justice. Office of Justice Programs. Office of Juvenile Justice and Delinquency Prevention.

Chadsey-Rusch, J., & Heal, L. (1995). Building consensus from transition experts on social integration outcomes and interventions. *Exceptional Children, 62*(2), 165-187.

Chadsey-Rusch, J., & Rusch, F. (1996). Promising transition practices for youths with disabilities. *Contemporary Education, 68*, 9-12.

Cody, R. P., & Smith, J. K. (1997). *Applied statistics and the SAS programming language* (4th ed.). Upper Saddle River, NJ: Prentice Hall.

Colbridge, T. D. (2000). The Americans with Disabilities Act. *FBI Law Enforcement Bulletin, 69*(9), 26-31.

Collet-Klingenberg, L. (1998). The reality of best practices in transition: A case study. *Exceptional Children, 65*(2), 67-78.

Colley, D. A., & Jamison, D. (1998). Post school results for youth with disabilities: Key indicators and policy implications. *Career Development for Exceptional Individuals, 21*, 145-159.

Community Alliance for Special Education. (2000). *Special education rights and responsibilities* (8th ed.). San Francisco, CA: Author.

Council for Exceptional Children. (2004a, October). *CEC's update on IDEA reauthorization.* Retrieved January 12, 2005, from http://www.cec.sped.org/pp/IDEAReAuthTimeline.pdf

Council for Exceptional Children. (2004b, November). *The new IDEA: CEC's summary of significant issues.* Retrieved December 12, 2004, from http://www.cec.sped.org//pp/IDEA_120204.pdf

Culatta, R. A., Tompkins, J. R., & Werts, M. G. (2002). *Fundamentals of special education: What every teacher should know* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Cutshall, S. (2001). School-to-work: Has it worked? *Techniques-Association for Career and Technical Education, 76*(1), 18-21.

deFur, S., Getzel, D., & Kregel, J. (1994). Individual transition plans: A work in progress. *Journal of Vocational Rehabilitation, 4,* 139-145.

deFur, S., & Taymans, J. M. (1995). Competencies needed for transition specialists in vocational rehabilitation, vocational education, and special education. *Exceptional Children, 62*(2), 38-51.

DeStefano, L., Hasazi, S., & Trach, J. (1997). Issues in the evaluation of a multi-site federal systems change initiative. *Career Development for Exceptional Individuals, 20*, 123-139.

Devlieger, P., & Trach, J. S. (1999). Mediation as a transition process: The impact on post-school employment outcomes. *Exceptional Children, 65*(4), 507-523.

Doren, B., Bullis, M., & Benz, M. (1996). Predicting the arrest status of adolescence with disabilities in transition. *The Journal of Special Education, 29*, 363-380.

Dowdy, C. (1996). Vocational rehabilitation and special education: Partners in transition for individuals with learning disabilities. *Journal of Learning Disabilities, 29*, 137-147.

Dowdy, C., & Evers, R. (1996). Preparing students for transitions: A teacher primer on vocational and rehabilitation services. *Intervention in School and Clinic, 31*, 197-208.

Doyle, D. P. (2002). Knowledge-base decision making. *School Administrator, 59*, 30-34.

Dunn, C. (1996). A status report on transition planning for individuals with learning disabilities. *Journal of Learning Disabilities, 29,* 17-30.

Education for All Handicapped Children Act of 1975, 20 U.S.C. (section) 1401 *et seq.*

Education of the Handicapped Amendments of 1986, 20 U.S.C. (section) 1401 *et seq.*

Everson, J. M., Zhang, D., & Guillory, J. D. (2002). A statewide investigation of individualized transition plans in Louisiana. *Career Development for Exceptional Individuals, 24*, 37-49.

Fabian, E. S., Lent, R. L., & Willis, S. P. (1998). Predicting work transition outcomes for students with disabilities: Implications for counselors. *Journal of Counseling and Development, 76*, 311-315.

Fahle, V. (2002, October). *Transition IEP checklist regional training.* Paper and notes presented at the meeting of the Kent Intermediate School District Transition Checklist Training, Grand Rapids, MI.

Fahle, V., Myron, S., & Winans, A. (2002, October). *Transition IEP checklist regional training.* Paper and notes presented at the meeting of the Kent Intermediate School District Transition Checklist Training, Grand Rapids, MI.

Farley, R., & Johnson, V. (1999). Enhancing the career exploration and job seeking skills of secondary students with disabilities. *Career Development for Exceptional Individuals, 22*, 43-54.

Fawcett, G. (2004). Leading vision. *Kappa Delta Pi Record, 44*, 112-115.

Field, S., & Hoffman, A. (1994). Development of a model for self-determination. *Career Development for Exceptional Individuals, 17,* 159-169.

Field, S., & Hoffman, A. (1996). Promoting self-determination in school reform, individualized planning, and curriculum efforts. In D. J. Sands & M. L. Wehmeyer (Eds.), *Self-determination across the lifespan* (pp. 197-214). Baltimore: Paul H. Brookes.

Field, S., Hoffman, A., & Posch, M. (1997). Self-determination during adolescence: A developmental perspective. *Remedial and Special Education, 18*, 285-293.

Fink, A. (1995). *How to analyze survey data.* Thousand Oaks, CA: Sage.

Fraenkel, J. R., & Wallen, N. E. (1993). *How to design and evaluate research in education* (2nd ed.). New York: McGraw-Hill.

Frank, A., Sitlington, P., Cooper, L., & Cool, V. (1990). Adult adjustment of recent graduates of Iowa mental disabilities program. *Education and Training in Mental Retardation, 25*(1), 62-75.

Frasier, K. (1999). *IEP Team Guide.* Reston, VA: The Council for Exceptional Children.

Friend, M., & Bursuck, W. (2002). What accommodations can you make for students with moderate, severe, or multiple disabilities? In M. Friend & W. Bursuck (Eds.), *Including students with special needs* (pp. 153-170). Boston: Allyn & Bacon.

Furney, K. S., Hasazi, S. B., & DeStefano, L. (1997). Transition policies, practices and promises: Lessons from three states. *Exceptional Children, 65*(2), 343-355.

Gardecki, R., & Neumark, D. (1998). Order from chaos? The effects of early labor market experiences on adult labor market outcomes. *Industrial and Labor Relations Review, 51*, 299-322.

Garmston, R. J. (1999). Better by the bunch. *Journal of Staff Development, 20,* 64-65.

Garmston, R. (2004). Group wise. *National Staff Development Council, 25*(3), 65-67.

Geenen, S., Powers, L. E., & Lopez-Vasquez, A. (2001). Multicultural aspects of parent involvement in transition planning. *Exceptional Children, 67*(2), 265-282.

Glass, G. V., & Hopkins, K. D. (1996). *Statistical methods in education and psychology* (3rd ed.). Boston: Allyn and Bacon.

Green, S. B., Salkind, N. J., & Akey, T. M. (2000). *Analyzing and understanding data* (2nd ed.). New York: Prentice Hall.

Greene, G. (2003). Best practices in transition. In G. Greene & C. Kochhar-Bryant (Eds.), *Pathways to successful transition for youth with disabilities* (pp. 154-188). Upper Saddle River, NJ: Prentice Hall.

Grigal, M., Test, D., Beattie, J., & Wood, M. (1997). An evaluation of transition components of individualized education programs. *Exceptional Children, 63*(2), 343-355.

Halloran, W., & Johnson, W. (1992). Education-industry collaboration: Guidelines for complying with the Fair Labor Standards Act. *American Rehabilitation, 18*, 21-23.

Halpern, A. S., & Benz, M. R. (1987). A statewide examination of secondary special education for students with mild disabilities: Implications for the high school curriculum. *Exceptional Children, 54*(2), 122-129.

Hardman, M., Drew, C., & Winston-Egan, M. (2002). Employment preparation. In M. Hardman, C. Drew, & M. Winston-Egan (Eds.), *Human exceptionality: Society, school, and family* (pp. 141-165). Boston: Allyn & Bacon.

Harvey, M. (2001a). The efficacy of vocational education for students with disabilities concerning post-school employment outcomes: A review of the literature. *Journal of Industrial Teacher Education, 38*, 25-44.

Harvey, M. (2001b). Vocational-technical education: A logical approach to dropout prevention for secondary special education. *Preventing School Failure, 45*(3), 108-113).

Hasazi, S. B., Furney, K., & DeStefano, L. (1999). Implementing the IDEA transition mandates. *Exceptional Children, 65* (3), 555-566.

Hasazi, S. B., Gordon, L. R., & Roe, A. (1985). Factors associated with the employment status of handicapped youth exiting from high school from 1979-1984. *Exceptional Children, 51*(3), 455-469.

Heal, L., Khoju, M., & Rusch, F. (1997). Predicting quality of life of students who have left special education high school programs. *American Journal on Mental Retardation, 104*(4), 330-319.

Herr, S. S. (1997). Reauthorization of the Individuals with Disabilities Education Act. *Mental Retardation, 35*, 131-137.

Heward, W. L. (2002*). Exceptional children: An introduction to special education* (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Holen, A. (2000). The PBL group: Self-reflections and feedback for improved learning and growth. *Medical Teacher, 22*(5), 485-489.

Huefner, D. S. (2000). The risks and opportunities of the IEP requirements under IDEA '97. *The Journal of Special Education, 33*(4), 195-204.

Individuals with Disabilities Education Act Amendments of 1986, 20 U.S.C. δ 1400 *et seq.*

Individuals with Disabilities Education Act Amendments of 1990, 20 U.S.C. δ 1400 *et seq.*

Individuals with Disabilities Education Act Amendments of 1997, 20 U.S.C. δ 1400 *et seq.*

Individuals with Disabilities Education Improvement Act of 2004, 20 U.S.C. δ 1400 *et seq.*

Johns, B., Crowley, E., & Guetzloe, E. (2001). *Effective curriculum for students with emotional and behavior disorders: Reaching them through teaching them.* Denver, CO: Love.

Johnson, B., & Christensen, L. (2004). *Educational research: Quantitative, qualitative, and mixed approaches* (2nd ed.). Boston: Pearson.

Johnson, D. R., & Sharpe, N. M. (2000). Analysis of local education agency efforts to implement the transition services requirements of IDEA of 1990. In D. R. Johnson & E. J. Emanuel (Eds.), *Issues influencing the future of transition programs and services in the United States* (pp. 31-48). Minneapolis: University of Minnesota.

Johnson, D. R., Sharpe, N. M., & Sinclair, M. (1997). *Report on the national survey of the implementation of the IDEA transition requirements.* Minneapolis: University of Minnesota, National Transition Network, Institute on Community Integration.

Johnson, D., Stodden, R., Luecking, E., & Richard-Mach, M. (2002). Current challenges facing secondary education and transition services: What research tells us. *Exceptional Children, 68*(4), 519-531.

Johnson, R. S. (2002). *Using data to close the achievement gap: How to measure equity in our schools* (2nd ed.). Thousand Oaks, CA: Corwin Press.

Karge, B. D., Patton, P. L., & de la Garza, B. (1992). Transition services for youth with mild disabilities: Do they exist, are they needed? *Career Development for Exceptional Individuals, 15*, 47-68.

Katsiyannis, A., deFur, S., & Conderman, G. (1998). Transition services-system change for youth with disabilities: A review of state practices. *The Journal of Special Education, 32*, 55-61.

Katsiyannis, A., Yell, M., & Bradley, R. (2001). Reflections on the 25th anniversary of the Individuals with Disabilities Education Act. *Remedial and Special Education, 22*(6), 324-334.

Katsiyannis, A., & Zhang, D. (2001). Transition services: Plans for the future. *Principal Leadership, 7*, 38-43.

Katsiyannis, A., Zhang, D., & Archwamety, T. (2002). Placement and exit patterns for students with mental retardation: An analysis of national trends. *Education and Training in Mental Retardation and Developmental Disabilities, 37*, 134-145.

Kazdin, A. (1987). Treatment of anti-social behavior in children: Current status and future directions. *Psychologist Bulletin, 102*, 187-203.

Knight, D., & Aucoin, L. (1999). Assessing job-readiness skills: How students, teachers, and employers can work together to enhance on-the-job training. *Teaching Exceptional Children, 31*(2), 10-17.

Knott, L., & Asselin, S. (1999). Transition competencies: Perceptions of secondary special education teachers: *Teacher Education and Special Education 22*, 55-65.

Koch, R., Cairns, J., & Brunk, M. (2000). How to involve staff in developing an outcomes-oriented organization. *Education and Treatment of Children, 23*, 41-47.

Kohler, P. D. (1993). Best practices in transition: Substantiated or implied? *Career Development for Exceptional Individuals, 16*, 107-121.

Kohler, P. D. (1996). Preparing youth with disabilities for future challenges: A taxonomy for transition programming. In P. Kohler (Ed.), *Taxonomy for transition programming: Linking research and practice* (pp. 1-62). Champaign: University of Illinois at Urbana-Champaign, Transition Research Institute.

Kohler, P. (1998). Implementing a transition perspective of education: A comprehensive approach to planning and delivering secondary education and transition services. In F. R. Rusch & J. Chadsey (Eds.), *High school and beyond: Transition from school to work* (pp. 179-205). Belmont, CA: Wadsworth.

Kohler, P. D., DeStefano, L., Wermuth, T., Grayson, T., & McGinty, S. (1994). An analysis for exemplary transition programs: How and why are they selected? *Career Development for Exceptional Individuals, 17*, 187-202.

Kohler, P. D., & Field, S. (2003). Transition focused education: Foundation for the future. *The Journal of Special Education, 37*, 174-183.

Kohler, P. D., & Hood, L. K. (2000). *Improving student outcomes: Promising practices and programs for 1999-2000.* Champaign: University of Illinois at Urbana-Champaign, Transition Research Institute.

Kortering, L., & Braziel, P. (1999). School dropout from the perspective of former students: Implications for secondary special education programs. *Remedial and Special Education, 20*(2), 78-83.

Lambert, L. (2002). A framework for shared leadership. *Educational Leadership, 59*, 37-40.

LaMore, G. (2002, February). *Outcomes of schools who are not in compliance.* Presentation at the auditor information interview from the Intermediate School District of Ottawa Country, Holland, MI.

Lawson, S., & Everson, J. (1994). *A national review of statements of transition services for students who are deaf-blind.* Great Neck, NY: Helen Keller National Center/ Technical Assistance Center.

Lehman, J. P., Bassett, D. S., & Sands, D. J. (1999). Students' participations in transition-related actions: A qualitative study. *Remedial and Special Education, 20*(3), 160-169.

Lehman, J. P., Bassett, D. S., Sands, D. J., Spencer, K., & Gliner, J. A. (1999). Research translated into practices for increasing student involvement in transition related activities. *Career Development for Exceptional Individuals, 22*, 3-19.

Lehman, J., Cobb, B., & Tochterman, S. (2001). Exploring the relationship between transition and educational reform initiatives. *Career Development for Exceptional Individuals, 24*, 185-198.

Lewis, R. B., & Doorlag, D. H. (2002). Success for all students in the general education classroom. In D. Lewis (Ed.), *Teaching special students in the general education classroom* (6th ed., pp. 2-60). Upper Saddle River, NJ: Prentice Hall.

Love, L., & Malian, I. (1997). What happens to students leaving secondary special education services in Arizona? Implications for educational program improvement and transition services. *Remedial and Special Education, 18*, 261-269.

Malian, I., & Love, L. (1998). Leaving high school: An ongoing transition study. *Teaching Exceptional Children, 30*(2), 4-10.

Marshall, C. (1985). Appropriate criteria of trustworthiness and goodness for qualitative research on education organizations. *Quality and Quantity, 19*, 353-373.

Marshall, C., & Rossman, G. R. (1999). *Designing qualitative research* (3rd ed.). London: Sage Publications.

Martin, J., Marshall, L., & Maxon, L. (1993). Transition policy: Infusing self-determination and self advocacy into transition programs. *Career Development for Exceptional Individuals, 15*, 53-61.

Martin, J. E., Marshall, L. H., & Sale, P. (2004). A 3-year study of middle, junior high, and high school IEP meetings. *Exceptional Children, 70*(3), 285-297.

Martin, J., Peterson, L., & Van Dycke, J. (2002). Self-directed plans of study: A key component to a self-directed IEP. *CEC Today, 8*, 10-15.

Mauro, R. (2000). *Disability statistics*. Retrieved October 2, 2001, from http://codi.buffalo.edu/graph_based/.demographics/.statistics

McKenna, K. (2000). The transition journey. *The Exceptional Parent, 30*(7), 56-8.

McMahan, R., & Baer, R. (2001). IDEA transition policy compliance and best practice: Perceptions of transition stakeholders. *Career Development for Exceptional Individuals, 24*, 170-184.

McNair, J., & Rusch, F. (1991). Parent involvement in transition programs. *Mental Retardation, 29*(2), 93-101.

McNeil, D. (1997). As reported in U. S. Department of Education. *First report of the Presidential Task Force in employment on adults with disabilities.* Washington, DC: Author.

Mellard, D. F., & Lancaster, P. E. (2003). Incorporating adult community services in students' transition planning. *Remedial and Special Education, 24*(6), 359-368.

Messmer, R., Jones, S., & Moore, J. (1998). Knowledge, perceptions, and practices of nurses toward patients diagnosed with tuberculosis. *The Journal of Continuing Education in Nursing, 29*(3), 117-125.

Miles, K. H. (2001). Putting money where it matters. *Educational Leadership, 59,* 53-57.

Miles, M. B., & Huberman, A. M. (1994). *An expanded sourcebook: Qualitative data analysis* (2nd. ed.). Thousand Oaks, CA: Sage Publications.

Miller, S. P. (2002). Organizing the learning environment. In S. P. Miller (Ed.), *Validated practices for teaching students with diverse needs and abilities* (pp. 2-60). Boston: A. B. Longman.

Morgan, S., Reichert, T., & Harrison, T. (2002). *From numbers to words: Reporting statistical results for the social sciences.* Boston: Allyn & Bacon.

Morningstar, M. (1997). Critical issues in career development and employment preparation for adolescents with disabilities. *Remedial and Special Education, 18,* 307-320.

Morningstar, M., Turnbull, A., & Turnbull, H. (1995). What do students with disabilities tell us about the importance of family involvement in transition from school to adult life? *Exceptional Children, 62*(3), 249-260.

Morris, L., Fitz-Gibbon, C., & Freeman, M. (1987). *How to communicate findings.* London: Sage.

Muscott, H. S. (2004). Exceptional partnerships: Listening to the voices of families. *Preventing School Failure, 46,* 66-69.

National Center for Education Statistics. (2000). *Dropout rates in the United States: 1998.* Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement (NCES 2000-022).

National Center on Secondary Education and Transition. (2004, December). *Key provisions on transition: IDEA 1997 compared to H.R. 1350.* Retrieved on December 27, 2004, from http://ncset.org/publications/related/ideatransition.asp

National Council on Disability. (2000a, November). *Transition and post-school outcomes for youth with disabilities: Closing the gaps to post-secondary education and employment.* Washington, DC: Author.

National Council on Disability. (2000b). *The education of students with disabilities: Where do we stand?* Washington, DC: Author.

National Information Center for Children and Youth with Disabilities. (1995). *A student's guide to the IEP.* Washington, DC: Author.

New York State Education Department. (1997a). *The post school status of former special education students in the big five cities: Post secondary education.* Retrieved September 17, 2001, from http://web,nysed.gov/vesid/rp0299/word/0299rr2.htm

New York State Education Department. (1997b). *The post school status of former special education students in the big five cities: Transition planning.* Retrieved September 17, 2001, from http://web,nysed.gov/vesid/rp0299/word/0299rr2.htm

Nuttall, J. (2002, June). *Number resident population by age and disability in Michigan for year 2000.* Lansing, MI: Michigan Special Education Statistics.

Ochoa, T. A., Gottschall, H., & Stuart, S. K. (2004). Group participation and satisfaction: Results from a PBL computer-supported module. *Journal of Educational Multimedia and Hypermedia, 13,* 73-91.

Office of Special Education Programs. (2000). *Students with disabilities exiting special education* (Publication No ED 400573). Retrieved September 10, 2001, from OSEP Annual Report from http://edgov./pubs/OSEP9AnlRpt/chap2c.html

O'Leary, E. (1999). *Transition outcomes project conceptual framework.* Paper presented at the October 2000 meeting of the Michigan Transition Service Project, Lansing, MI.

O'Leary, E. (2000a, October). *Michigan transition improvement process.* Paper presented at the meeting of the Michigan Transition Service Project-Staff Meeting, Lansing, MI.

O'Leary, E. (2000b, November). *Michigan transition outcomes improvement project conceptual framework.* Paper presented at the meeting of the Michigan Transition Service Project, Lansing, MI.

O'Leary, E. (2001a, December). *Transition outcomes project.* Paper presented at the meeting of the Transition Outcomes Project, Lansing, MI.

O'Leary, E. (2001b, December). *Transition services: Re-designing the what, how and who in IEPs.* Paper presented at the meeting of the Transition Outcomes Projects, Lansing, MI.

O'Leary, E. (2001c, Fall). Doing the right thing and doing things right. *MPRRC Newsletter.* Retrieved April 14, 2003, from http://www.wsti.org/media/O%27Leary_Doingthingsright.pdf

O'Leary, E. (2001d, December). *Michigan transition outcomes project flow chart.* Paper presented at the meeting of the Transition Outcomes Project, Lansing, MI.

O'Leary, E. (2002, August). *A [somewhat] brief history of the transition outcomes projects.* Paper presented at the meeting of the Michigan Transition Service Project, Lansing, MI.

O'Leary, E. (2003). *Sequence of steps and activities.* Retrieved August 13, 2004, from http://www.usu.edu/mprrc/curproj/sectrans/top/activities.cfm

O'Leary, E., & Ball, W. (2002). *Arizona transition outcomes project.* Retrieved October 20, 2002, from http://www.ade.state.az.us/ess/transitionservices/PDFs/ATOP%20Report.pdf

O'Leary, E., Lehman, M., & Doty, D. (2001). *Transition requirements checklist.* Adapted from *The Individuals with Disabilities Education Act of 1997 transition services requirements: A guide for states, districts, schools, universities and families.* Washington, DC: U.S. Department of Education Office of Special Education.

Palmer, S. B., Wehmeyer, J. L., Gipson, K., & Agran, M. (2004). Promoting access to the general curriculum by teaching self-determination skills. *Exceptional Children, 70*(4), 427-439.

Patton, J., Cronin, M. E., & Jairrels, V. (1997). Curricular implications of transition: Life skills instruction as an integral part of transition education. *Remedial and Special Education, 18*, 294-306.

Patton, M. Q. (1987). *How to use qualitative methods in evaluation.* London: Sage Publications.

Patton, M. Q. (1990). *Qualitative evaluation and research methods*. Newbury Park, CA: Sage Publications.

Peräkylä, A. (1997). Reliability and validity in research based on tapes and transcripts. In D. Silverman (Ed.), *Qualitative research* (pp. 201-220). London: Sage Publications.

Petersen, G. J., & Young, M. D. (2004). No Child Left Behind Act and its influence on current and future district leaders. *Journal of Law and Education, 33*(3), 343-363.

Pierce, D., & Murray, C. (2004). Data-driven decision making. *School News, 23*, 17-23.

Powers, L. E., Turner, A., Matuszewski, J., Wilson, R., & Loesch, C. (1999). A qualitative analysis of student involvement in transition planning. *The Journal for Vocational Special Needs Education, 21*, 18-26.

Ramnarine, S. (2004). Impacting student achievement through data-driven decision making. *Multimedia and Internet Schools, 11,* 33-35.

Razeghi, J. (1998). A first step toward solving the problem of special education dropouts: Infusing career education into the curriculum. *Intervention in School and Clinic, 33*, 148-156.

Reguera, L. (1995). A change in outlook: From work to school. *Prospects, 15*(2), 1995.

Rehabilitation Act of 1973, Section 504, 29 U.S.C. (section) 794.

Reilly, L. (1999). IDEA'97 final regulations provisions of special interest to teachers. *Teaching Exceptional Children, 32*, 88-89.

Repetto, J., & Correa, V. (1996). Expanding views on transition. *Exceptional Children, 62*(3), 551-563.

Richardson, M. (2001). Work-based learning. *The Exceptional Parent, 31*, 40-44.

Rylance, B. J. (1998). Predictors of post-high school employment for youth identified as severely emotionally disturbed. *The Journal of Special Education, 32*(3), 184-192.

Salkind, N. J. (2000). Measurement, reliability, and validity. In N. Salkind (Ed.), *Exploring Research* (4th ed., pp. 99-119.). Upper Saddle River, NJ: Prentice Hall.

Scanlon, D., & Mellard, D. (2002). Academic and participation profiles of school-age dropouts with and without disabilities. *Exceptional Children, 68*(2), 239-258.

Schwartz, W. (1995). New information on youth who drop out: *Why they leave and what happens to them. For parents about parents.* Washington, DC: U. S. Department of Education, Office of Educational Research and Improvement (ERIC Document Reproduction Service No. ED 396 006)

Seidman, I. (1998). *Interviewing as qualitative research: A guide for researchers in education and the social sciences* (2nd ed.). New York: Teachers' College Press.

Senate Report of the Individuals with Disabilities Act Amendments of 1997. Retrieved July 20, 2002, from http://www.wais.access.gpo.gov

Shafer, M., & Rangasamy, R. (1995). Transition and native American youth: A follow up study of school leavers on the Fort Apache Indian Reservation. *Journal of Rehabilitation, 61*, 60-65.

Sinclair, M., Christenson, S., Evelo, D., & Hurley, C. (1998). Dropout prevention for youth with disabilities: Efficiency of a sustained school engagement procedure. *Exceptional Children, 65*(2), 7-21.

Sitlington, P. L. (1996). Transition to living: The neglected component of transition programming for individuals with learning disabilities. *Journal of Learning Disabilities, 29*(2), 31-39.

Sitlington, P. L., Clark, G., & Kolstoe, O. (2000). *Transition education and services for adolescents with disabilities*. Boston: Allyn & Bacon.

Sitlington, P. L., & Frank, A. (1990). Are adolescents with learning disabilities successfully crossing the bridge into adult life? *Learning Disability Quarterly, 13*, 97-111.

Sitlington, P., Frank, A., & Carson, R. (1993). Adult adjustment among high school graduates with mild disabilities. *Exceptional Children, 59*(2), 221-233.

Stolting, J. (1998). Vocational training does make a difference. *The Exceptional Parent, 28*, 40-42.

Storms, J., O'Leary, E., & Williams, J. (2000). *The Individuals with Disabilities Education Act of 1997, Transition services requirements: A guide for states, districts, schools, universities and families.* Washington, DC: U.S. Department of Education, Office of Special Education.

Szymanski, E. (1994). Transition: Life-span and life span considerations for empowerment. *Exceptional Children, 60*(3), 401-410.

Taylor, H. (1998). *Americans with disabilities still pervasively disadvantaged on a broad range of key indicators.* Harris Poll #56. Retrieved September 29, 2001, from http://www.harrisinteractive.com/harris_poll/index.asp?PID=152

Taylor, H. (2000a). *Conflicting trends in employment of people with disabilities 1986-2000.* Harris Poll #59. Retrieved September 29, 2001, from http://www.harrisinteractive.com/harris_poll/index.asp?PID=121

Taylor, H. (2000b). *Many people with disabilities feel isolated, left out of their communities and would like to participate more.* Harris Poll #34. Retrieved September 29, 2001, from http://www.harrisinteractive.com/harris_poll/index.asp?PID=97

Thoma, C. (1999). Supporting student voices in transition planning. *Teaching Exceptional Children, 31*(5), 4-9.

Thurlow, J., Ysseldyke, J., & Reid, C. (1997). High school graduation requirements for students with disabilities. *Journal of Learning Disabilities, 30*, 608-616.

Trach, J., & Shelden, D. (2000). Meeting attendance and transition outcomes as reflected in students' individualized education programs. In D. R. Johnson & E. J. Emanuel (Eds.), *Issues influencing the future of transition programs and services in the United States* (pp. 137-152). Minneapolis: University of Minnesota.

Turnbull, H. R., & Turnbull, A. P. (1993). Introduction to the issue. *Journal of Vocational Rehabilitation, 3,* 2-4.

U.S. Department of Education. (1994). *The national longitudinal transition study: A summary of finding.* Menlo Park, CA: SRI International.

U.S. Department of Education. (1995). To assure a free appropriate education of all children with disabilities. *Seventeenth annual report to Congress on the implementation of the Individuals with Disabilities Education Act.* Washington, DC: Author.

U.S. Department of Education, Office of Special Education Programs. (1996). To assure a free appropriate education of all children with disabilities. *Eighteenth annual report to Congress on the implementation of the Individuals with Disabilities Education Act.* Washington, DC: Author.

U.S. Department of Education. (1998, November 15). *First report of the Presidential Task Force in employment on adults with disabilities.* Washington, DC: Author.

U.S. Department of Education, Office of Special Education Programs. (2000). To assure a free appropriate education of all children with disabilities. *Twenty second Annual Report to Congress on the implementation of the Individuals with Disabilities Education Act.* Washington, DC: Author.

U.S. Department of Education, Office of Special Education Programs. (2001). *State and local implementation of IDEA.* Washington, DC: Author.

U.S. Department of Education. (2002, March). *What are we spending on special education services in the United States in 1999-2000?* (Publication No. ED 99CO 0091). Retrieved July 12, 2002, from http://www.seep.org/DOCS/AdvRpt1.PDF

VanderPlog, J., & Saur, C. (2004, December). *Present level of education performance for students with disabilities.* Paper presented at the meeting of the Kent County Intermediate School District, Grand Rapids, MI.

Wagner, M. (1989). *Youth with disabilities: How are they doing?* Menlo Park, CA: SRI International. (ERIC Document Reproduction Service No. ED 341 228)

Wagner, M. (1990). *The school programs and school performance of secondary students classified as learning disabled: Findings from the national longitudinal transition study of special education students.* Menlo Park, CA: SRI International.

Wagner, M., Blackorby, J., Cameto, R., Hebbeler, K., & Newman, L. (1993). *The transition experience of young people with disabilities: A summary of findings from the national longitudinal transition study of special education students.* Menlo Park, CA: SRI International.

Wagner, M., Cadwallader, T., & Marder, C. (2003). *Life outside the classroom for youth with disabilities. A report of findings from the National Longitudinal Transition*

*Study and the national longitudinal transition study-2.* Menlo Park, CA: SRI International.

Wagner, M., Cameto, R., & Newman, L. (2003). *Youth with disabilities: A changing population. A report of findings from the national longitudinal transition study and the national longitudinal transition study-2.* Menlo Park, CA: SRI International.

Wagner, M., D'Amico, R., Marder, C., Newman, L., & Blackorby, J. (1991). *Youth with disabilities: How are they doing? The first comprehensive report from the National Longitudinal Transition Study of Special Education Students.* Menlo Park, CA: SRI International.

Wall, M., & Datillo, J. (1995). Creating option-rich learning environments: Facilitating self-determination. *Journal of Social Education, 29*, 276-294.

Weber, J. (1987). *Strengthening vocational education's role in decreasing the dropout rate.* Columbus: Ohio State University, Center for Research in Vocational Education.

Weber, R. P. (1990). *Basic content analysis* (2nd ed.). Newbury Park, CA: Sage.

Wehman, P., Everson, J. M., & Reid, D. H. (2001). Beyond programs and placement: Using person-centered practices to individualize the transition process and outcomes. In P. Wehman (Ed.), *Life beyond the classroom: Transition strategies for young people with disabilities* (3rd ed.). Baltimore: Paul H. Brookes.

Wehmeyer, M. L., & Palmer, S. B. (2003). Adult outcomes for students with cognitive disabilities three-years after high school: The impact of self-determination. *Education and Training in Developmental Disabilities, 38*(2), 131-144.

Wehmeyer, M. L., & Schwartz, M. (1997). Self-determination and positive adult outcomes: A follow-up study of youth with mental retardation or learning disabilities. *Exceptional Children, 63*(2), 245-255.

Weishaar, M. (2001). The regular educator's role in the individual education plan process. *The Clearing House, 75*(2), 96-98.

Weiss, R. S. (1994). *Learning from strangers: The art and method of qualitative interview studies.* New York: The Free Press.

West, L. L., & Taymans, M. J. (1998). Keeping up with the new IDEA. *Techniques, 73*(4), 25.

Whitney-Thomas, J., Shaw, D., Honey, K., & Butterworth, J. (1998). Building a future: A study of student participation in person-centered planning. *The Journal of the Association for Persons with Disabilities, 23*(2), 119-133.

Wiersma, W., & Jurs, S. G. (2004). Data analysis: Inferential statistics. In W. Wiersma & S. Jurs, *Research methods in education: An introduction* (8th ed., pp. 372-403). Boston: Allyn & Bacon.

Williams, J. M., & O'Leary, E. (2001). What we've learned and where we go from here. *Career Development for Exceptional Individuals, 24*, 51-71.

Worthington, L. A. (2004). Improving literacy instruction of special education teachers through additional course work and support. *Journal of Instructional Psychology, 31*(2), 167-179.

Yell, M. L. (1997). Education and the law. *Preventing School Failure, 41*, 185-187.

Yell, M. L., Rogers, D., & Rogers, E. L. (1998). The legal history of special education: What a long, strange trip it's been! *Remedial and Special Education*, 19, 219-228.

Yell, M. L., & Shriner, J. G. (1997). The IDEA amendments of 1997: Implications for special and general education teachers, administrators, and teacher trainers. *Focus on Exceptional Children, 30*, 1-19.

Yoak-Newman, J. (2000, November). *Michigan transition outcomes project.* Symposium conducted at the meeting of the Michigan Transition Service Project Conceptual Framework Meeting, Lansing, Michigan.

Zetlin, A. G., & Hosseini, A. (1989). Six post-school case studies of mildly learning handicapped young adults. *Exceptional Children, 55*(4) 405-411.

Zhang, D., Everson, J. M., & Guillory, J. D. (1999, June). *Findings from a statewide investigation of individual transition plans.* New Orleans: Louisiana State University Health Sciences Center, Human Development Center.