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# The Secondary Transition Planning Process and Effective Outcomes for High School Graduates with Mild Disabilities

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**The Secondary Transition Planning Process and Effective Outcomes for High School  
Graduates with Mild Disabilities**

by

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## Chapter 1: Introduction

In the 1980s, the Education of All Handicapped Children Act (EHA) of 1983 brought national attention to the transition needs of secondary youth with disabilities. In efforts to address concerns produced by post-school outcome studies, the amendments addressed secondary education and transition, which launched a federal initiative to develop model transition programs (Flexer, Baer, Luft, & Simmons, 2008). The Office of Special Education and Rehabilitative Services (OSERS) promoted secondary education improvements including projects to develop transition services, community-based education and services, cooperative models, job training, self-determination, and local education agencies to provide transition services (Flexer et al., 2008). Transition planning helps secondary students with disabilities find meaning in their educational activities. The 1983 EHA amendments also promoted individual transition plans for high school youth and funded model projects focused on developing teamwork and collaboration between community agencies (Stull & Sanders, 2003).

Education of All Handicapped Children Act was revised and renamed as Individuals with Disabilities Education Act (IDEA) in 1990 (U.S. Department of Education, 2007). The most recent amendments were passed by Congress in 2004 with connections for secondary students with disabilities because it required students with disabilities exit from high school prepared for post-school education, employment, and independent living (Mazzotti, Test, & Mustian, 2014). The Individuals with Disabilities Education Act (2004) defined transition services as follows:

A coordinated set of activities for a child with a disability that:

- Is designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the

child's movement from school to post-school activities, including postsecondary education, vocational education, integrated employment (including supported employment); continuing and adult education, adult services, independent living, or community participation;

- Is based on the individual child's needs, taking into account the child's strengths, preferences, interests;
- Includes instruction, related services, 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.

### **Research Question**

One research question guides this literature review:

1. What are the correlates of a successful transition planning process for high school graduates with mild disabilities?

### **Focus of Paper**

The review of literature in Chapter 2 includes 10 studies with participants who are identified as having a mild disability in their high school career and received special education services. The research includes studies ranging in dates from 2008 to 2016. Studies included in the review pertain to either evidence-based practices in the areas of secondary transition, or post-high school outcomes for graduates with disabilities.

The Academic Search Premiere and EBSCOhost databases were used to locate peer-reviewed studies related to secondary transition planning and post-high school outcomes.

Several key words and combinations of keywords were used to locate appropriate studies:

*special education, disabilities, mild disabilities, secondary transition planning, career and technical education, adult outcomes, employment, community participation, postsecondary education and training, and vocational rehabilitation.* Two of the 10 studies included participants involved in a previously conducted study titled, National Longitudinal Transition Study-2 (NLTS2). The NLTS2 was funded by the U.S. Department of Education and documented the experiences of a national sample of students with disabilities (11,000) who were 13 to 16 years of age in 2000 as they moved from secondary school into adult roles. They were 21 to 25 years old at the final data collection in 2009 (Buckley & Newman, 2009).

### **Importance of the Topic**

As a secondary special education teacher, I work closely with transition-aged students, specifically ages 15 to 19 years old who demonstrate needs in the areas of transitioning from adolescence into adulthood. The need for these adolescents to be successful, independent adults increases as we move into the demands of the 21st century workplace and economy. A general concern that prevents these young adults in the areas of postsecondary education and training or employment is the lack of positive role models in the home setting. Adolescents that have a strong example in the home, someone that demonstrates good employability skills or advocacy for their child, tend to transition into adulthood more smoothly than those that do not have a positive role model in the home. In addition, these students demonstrate poor self-determination or advocacy skills for themselves. The purpose of secondary transition is to prepare students with disabilities for positive post-school success in the areas of education, employment, and independent living (Mazzotti et al., 2014).

## **Definition of Terms**

The following is a glossary of terms found in this paper. Terms are listed here in alphabetical order.

*Business Enterprise Programs* are businesses owned by minorities, women, and persons with disabilities to uphold inclusiveness and competition within business enterprises (Gonzalez, Rosenthal, & Kim, 2011).

*Certificate of completion, attendance, or achievement* refers to a diploma offered to students who have met the requirements of their special education program, but not the requirements of the school's general education program (Hartwig & Sitlington, 2008).

*General Education Development Diploma (GED)* is a diploma offered to those who take the coursework and pass an exam offered by community colleges and/or high schools that covers very basic curriculum in the areas of math, science, reading, and writing (Hartwig & Sitlington, 2008).

*Individualized Education Program (IEP)* is a statement of the programs and services that will be provided to a student with a disability that is eligible under the IDEA (Flexer et al., 2008).

*Learning disabilities (LD or SLD)* refers to a neurobiological disorder in one or more of the basic processes involved in understanding spoken or written language; further, may influence an individual's ability to speak, listen, read, write, spell, reason, organize information, or do mathematical calculations (Lerner & Johns, 2009).



*Mild disabilities* is a grouping of students with different disabilities for instruction, such as learning disabilities, mild mental retardation, emotional disturbances, and other disabilities (Lerner & Johns, 2009).

*Occupational diploma* is a diploma that students receive for completing the requirements in certain occupations such as metal fabricating, auto mechanics, carpentry, or other skill areas (Hartwig & Sitlington, 2008).

*Public support* is any monetary payments made by federal, state, and/or local governments for any reason. The monetary funds are predicted upon receipt of any of the following: Supplemental Security Income (SSI) for the Aged, Blind, or Disabled; Temporary Assistance for Needy Families (TANF); General Assistance (state or local government); Social Security Disability Insurance (SSDI); Veterans' Disability Benefits; Workers' Compensation; or Other Public Support (Gonzalez et al., 2011).

*Rehabilitation Services Administration (RSA)* is a state and federal program whose primary purpose is to assist individuals with disabilities to achieve gainful employment related to their strengths, weaknesses, resources, priorities, abilities, and capabilities (Gonzalez et al., 2011).

*Supports* refers to accommodations, persons in the environment, or practices that help an individual in conducting life activities, including employment (Flexer et al., 2008).

*Transition planning* refers to the process of helping students and their families plan services to help them reach career goals and adult living objectives related to their needs, interests, and preferences. The IDEA requires transition-planning activities documented in the IEP for students aged 14 and older (Flexer et al., 2008).

*Working at Gaining Employment Skills (WAGES) curriculum* is a job-related social skills curriculum consisting of 33 comprehensive lesson plans in four domains: a) self-regulation, b) teamwork, c) communication, and d) problem-solving. Its goal is to explicitly teach students to develop skills in identifying problems, generating solutions to problems, and acting on problems through appropriate social skills (Murray & Doren, 2013).

## Chapter 2: Review of the Literature

In this chapter, I review the findings of 10 studies that examined the correlates in secondary transition planning for successful outcomes of high school graduates with mild disabilities. Studies are presented in chronological order.

Hartwig and Sitlington (2008) conducted a study to determine the effect that different types of diplomas may have on the employment of young adults with disabilities. These types of diplomas included the following: a) standard diploma, b) occupational diploma, c) certificate of completion, attendance, or achievement, and d) general education development diploma (GED).

The authors took several steps to obtain participants in their study. First, the authors contacted the chamber of commerce (COC) of a nearby major mid-western city (population 69,000) for a list of employers who were members of the COC. At that time, the COC listed 979 members. Second, the authors used the Standard Occupational Classification (SOC) System Manual from the U.S. Department of Commerce to pool the COC members into manageable groups. The groups given by the SOC System Manual were titled the following:

1. Management, Professional, and Related Occupations
2. Service Occupations
3. Sales and Office Occupations
4. Natural Resources, Construction, and Maintenance Occupations
5. Production, Transportation, and Materials Moving Occupations

Next, five employers were randomly selected from those 979 members of the COC who had been placed under each of the five SOC groups. Finally, the authors contacted employers by

telephone requesting their participation in a face-to-face interview consisting of seven open-ended questions.

The results from the interviews allowed the authors to form multiple conclusions regarding employers' willingness to hire young adults with disabilities for entry-level jobs. First, employers were willing to consider a prospective employee's individual characteristics and not the type of diploma he or she had earned. Second, other than the standard high school diploma, employers were most willing to hire those with the occupational diploma, followed closely by the GED. Third, employers tended to stereotype a person with a GED indicating that they would hire him or her for an unskilled labor position. Finally, the employability of people who have earned certificates of completion, attendance, or achievement was much lower than for those with an occupational diploma or a GED.

The authors recommended that educators should continue to implement community-based work experiences and encourage positive work habits and attitudes. Also, the authors recommended that educators direct their students with disabilities to earn a standard high school diploma or an occupational diploma versus awarding them with a certificate of completion, attendance, or achievement. The limitations of this study include small sample size and population of the city. In other words, the responses of employers from larger or smaller cities of the country may differ from the participants in this study. The authors' notion that the employers' responses may have been influenced by their knowledge of the requirements of the Americans with Disabilities Act (ADA) is another limitation of this study.

Seo, Abbott, and Hawkins (2008) examined whether the presence of learning disabilities (LD) at age 10 was related to postsecondary schooling, employment, income, receipt of public

aid, involvement in crime, and feeling of victimization at ages 21 and 24. Participants were selected from a previous longitudinal study with a resulting sample of 571 students. Of this sample, 60 students (10.5%) were identified as having LD and had received special education services. The authors analyzed data from self-report surveys collected from participants with and without LD annually from Grades 5 to 10, at Grade 12, age 21, and age 24 as part of the Seattle Development Project (Seo et al., 2008).

In this quantitative study, the authors defined and investigated the following seven variables:

1. months worked
2. earned income
3. current school enrollment
4. having children
5. receiving public assistance
6. involvement in crime
7. feeling victimized

Results demonstrated multiple conclusions. First, there was no significant difference in high school completion or in postsecondary school attainment between students with LD and their non-disabled peers. Next, the two groups did not differ in employment status, earned income, or parenting children at both age 21 and age 24. At age 21, a higher proportion of young adults with LD were receiving public assistance, but by age 24 there was no significant difference between the two groups. Finally, individuals with LD were not more likely to be

involved in crime at age 21 or age 24 when compared to those without LD. The authors did not indicate implications for further research or any limitations of their study.

Ankeny, Wilkins, and Spain (2009) presented findings from their interviews with mothers of children with disabilities. The focus was on best-practice strategies for involving parents in the successful transition of youth from school to adulthood. To provide the perspectives of informed parents, the authors interviewed four mothers who had conducted a panel presentation at a local professional conference about their experiences as mothers of children with disabilities.

All mothers were contacted by telephone or email to request their participation in interviews about their transition experiences. Each interview was conducted using a semi-structured interview protocol, and each interview lasted between 1 and 1.5 hours. All interviews were audio recorded and afterwards were transcribed verbatim. By using inductive qualitative data-analysis procedures, the authors made cross-case comparisons among participants. In other words, the authors compared participants' responses to the same question and identified similarities, differences, patterns, and themes across data.

Through this process, the following three themes emerged: 1) goals and barriers to independence in adulthood, 2) transition as an ongoing process, and 3) importance of communication and support from teachers. This data showed that all mothers shared similar goals for their children. They wanted them to be independent, successful, and happy. On the other hand, important decisions especially those involving medical or financial factors were still made by the mothers. Their children's needs, even as young adults, illustrate that these mothers will need to provide lifelong support, especially in the areas of employment and daily living.

Each of the mothers spoke of the importance of initiating the transition process early. In addition, each mother noted the importance of preparing their children with realistic skills that help make them ready for adulthood. Finally, all mothers valued consistent and respectful communication from teachers.

The authors recommended that the case manager plays a crucial role in nurturing collaborative transition planning. This means the case manager maintains honest and respectful communication with parents; furthermore, case managers provide opportunities for the young adult to learn needed skills in environments that are real-life and age-appropriate. No general limitation of the study was indicated.

Collet-Klingenberg and Kilb (2011) shared results of a 2004 survey conducted in Wisconsin that revealed what special educators see as important transition program components and their satisfaction with program implementation in their local schools. The authors focused particularly on findings related to barriers of educational planning and provision. The authors developed a survey to assess special educators' perceptions of the following program components: a) curriculum, b) employment, c) independent living, d) instruction, e) leisure/recreation, f) postsecondary education, g) transition, and h) transportation.

Individual questions included descriptive statistical information as well as qualitative, open-ended questions for each of the eight components. The authors sent the questionnaire electronically to every school district in Wisconsin identified as having one or more students with disabilities in the age range of 18-21 years. A total of 379 questionnaires were distributed, with 231 completed and returned. The authors asked participants to rate each item on a scale of 1-5 (1= not important, 5= very important) for how important they felt that incorporation of the

component was in transition programming; in addition, on a scale of 1-5 (1= dissatisfied, 5= very satisfied) on their satisfaction with implementation of that component in their school's transition programs. Then, the authors collected and summarized descriptive information regarding importance of and satisfaction with components of transition programming categorized within eight major categories. They also gathered data from the open-ended questions targeting each of eight components and analyzed these data qualitatively using theme identification and sorting.

The results from the survey showed that rural special education programs face barriers in regards to transportation of students with disabilities. Lack of funding for school transportation limits collaboration between school and community instruction, which prohibits students from obtaining and maintaining recreation/leisure, employment, and postsecondary education experiences. In addition, limited work opportunities and adult living prospects in rural communities, creates limited options for students with disabilities outside of staying at home with parents or moving into assisted living. The lack of connection to post-secondary institutions due to distance from high school or other the facility, widens the gap further, for students in more rural communities.

The authors recommended additional research regarding practitioner viewpoints on transition program planning and implementation on a nationwide study of rural schools to deliver the most comprehensive and helpful information. The authors indicated limitations in their survey research including rate of response, limited sample size, and open-ended responses. The eight transition components were pre-determined by the authors is highlighting another limitation in the design of the study. Considering the research was limited to participants of



Wisconsin only, is another limitation. Despite all this, the authors believed that rural special education in the United States has more commonalities than differences regardless of state.

Gonzalez et al. (2011) analyzed the Rehabilitation Services Administration (RSA) case service report (RSA-911) data for fiscal year 2007 to examine effects of demographic characteristics and employment outcomes of persons with LD. Their research question was: “What consumer demographic characteristics predict the likelihood of successful employment outcomes for consumers with specific learning disabilities” (p. 167). The RSA-911 data consist of demographic data and services received by individual consumers served, in addition to employment outcomes. The cases with the primary disability of cognitive impairments (i.e., impairments involving learning, thinking, processing information and concentration) and primary cause of learning disabilities were gathered from the RSA-911 data for this study. The sample consisted of 30,264 individuals with a primary disability of specific learning disability.

In this quantitative study, the criterion variable was the vocational rehabilitation outcome, a categorical variable with two levels: competitively employed or not competitively employed. The RSA-911 defines competitive employment as employment in an integrated setting, self-employment or employment in a state-managed Business Enterprise Program (BEP) that is performed on a full-time or part-time basis for which an individual is compensated at or above the minimum wage. The predictor variables included gender, race, disability type (specific learning disability), age, education, and public support.

The authors concluded that young adults with SLD make up a small percentage ( $n=30,265$ , 5.0%) of individuals receiving services from state and federal vocational rehabilitation agencies ( $n=600,188$ ). Second, the study features the importance of understanding

the vocational rehabilitation needs of consumers with SLD. Finally, the study provides insight to those young adults with SLD who are at high risk for poor vocational outcomes, specifically the influence that public support and ethnicity/race may have on successful employment outcomes.

The authors recommended additional research for the following reasons: 1) to determine if any distinctions exist among the different types of specific learning disabilities and the interaction among rehabilitation services that best predict successful employment outcomes, 2) identification of those at high risk for unsuccessful outcomes and also inform service delivery patterns for other groups of vocational rehabilitation consumers, and 3) the use of quantitative methodology to examine factors related to comorbid conditions (e.g., substance abuse) that may impact post-high school employment outcomes of young adults with SLD. No general limitation of the study was noted.

Lindstrom, Doren, and Miesch (2011) examined the process of career development for young adults with disabilities; specifically, the important influences that add to career advancement and employment in living wage occupations. The authors used case study research methods in this qualitative design to analyze how and why certain influences contributed to positive post-school employment outcomes.

Participants for this study were selected from a larger sample in the case study conducted by Lindstrom, Doren, Metheny, Johnson, and Zane in 2007 (as cited in Lindstrom et al., 2011) which looked at factors associated with employment outcomes for young adults with disabilities. The purposeful eight participants were young adults who had a documented disability and received special education services, participated in a school-to-work transition program for at least 1 year, and exited high school between 1996 and 2001. In addition, for each participant the

authors interviewed one or both parents, a high school teacher who was familiar with the young adults' transition services and outcomes, a rehabilitation counselor for those who had received vocational rehabilitation services, as well as the current employer.

Interview questions were created by the authors and interviews occurred over a 4-year period. Initial interviews were done when participants were between 3 and 6 years out of high school. The second interviews were completed when the participants were between 7 and 10 years out of high school. Overall, a total of 66 interviews were completed that were audio recorded and transcribed verbatim. Further in their data collection, the authors also completed a family background questionnaire, job history form, and file review of special education and vocational rehabilitation records for all participants.

Findings showed that family expectations, work experience during high school, and transition services led these young adults with disabilities to an initial post-school placement in either employment or postsecondary training. During the span of 7 to 10 years after high school graduation, participants advanced in their jobs based on the following combined factors: enrollment in higher education or job training programs, patterns for workforce participation, and personal attributes such as self-efficacy, persistence, as well as positive coping skills.

The idea of teachers initiating transition services and provision of ongoing educational opportunities geared toward job training during the high school years was recommended by the authors. They also pointed out the importance for transition services be focused on individual knowledge and skills such as self-advocacy and communication. Limitation of this study was sampling procedures.

Murray and Doren (2013) were concerned for the need of additional research on interventions that may improve transition-related skills of adolescents with disabilities. They chose to particularly examine the effects of the Working at Gaining Employment Skills (WAGES) curriculum on occupational skills and social skills of high school students with disabilities within a classroom setting. Participants of the study consisted of 222 students from three high schools and 18 classrooms, grades 9-12. Two of the high schools were located in a large urban city and the third was located in a rural town. All were located in the Pacific northwestern region of the United States. The pupils of the classrooms were all students with disabilities.

Through quantitative analysis, Murray and Doren (2013) used the data collected from student and teacher rating scales that evaluated perceptions of vocational outcome expectations, occupational skills, and social skills. Their findings suggest that vocational outcome expectations among students with disabilities can be improved through exposure to the WAGES curriculum; in addition, students demonstrated more empathy, cooperation, and self-advocacy skills post intervention (Murray & Doren, 2013). The authors recommended further research that investigates the long-term effects of WAGES on employment or post-high school outcomes for young adults with disabilities. This could potentially give educators better insight for providing appropriate transition activities in the classroom to nurture more positive adult outcomes in employment. Limitation of this study were sampling procedures and data based largely on self-report and may not take into consideration all post school experiences.

Research conducted by Miller-Warren (2016) examined parents' perceptions about the secondary transition planning process and postsecondary outcomes regarding their children who

had an Individualized Education Program (IEP) at the time that they graduated from high school. In this quantitative research study, the author chose 39 parents of individuals with disabilities who graduated from a rural high school in June, 2011. The graduates had a wide range of disabilities that included autism, hearing impairments, visual impairments, intellectual disabilities, learning disabilities, emotional or behavior disorders, speech impairments, and other health impairments. The graduates completed high school with a standard high school diploma, an occupational high school diploma, or a certificate of completion. The author did not indicate specific information about the high school other than it being located in the southern region of the United States.

A previously validated closed-ended survey was used in this study to gain the information from the parents. The author mailed the survey to the parents that was completed and returned in a 2-week period. Next, the author analyzed the survey items using gross percentages and summarized based on how majority of participants responded to each survey item.

Of the 39 parent participants contacted for the study, 24 parent surveys were completed and returned. The results of the parent survey indicated that half of the graduates were currently employed and half of the graduates were currently unemployed. Further, majority of the graduates were not enrolled in college and most of the graduates were still living at home with their parents. Majority of parents reported that their children participated in career preparation courses during high school, however, the majority of parents indicated that their children did not receive instruction in the area of self-advocacy or self-determination. Finally, majority of

parents chose not to respond to the question regarding whether they felt their child was prepared for postsecondary challenges while in high school.

The author recommended a continuation of this study to learn the graduates' opinions on whether they chose not to pursue their intended postsecondary goals because they changed their minds after high school or whether the goals were too difficult to attain due to the lack of support or lack of effort. One limitation of the study was the demographic location and choosing parents of graduates from only one rural high school. Another limitation of the study is that the researcher did not survey the graduates which meant no responses regarding their perspectives of their secondary transition planning process and outcomes.

Newman, Madaus, and Javitz (2016) used data from the National Longitudinal Transition Study-2 (NLTS2) to further look at the relationship between components of high school transition planning and the availability of services at the postsecondary level among a national sample of students with disabilities. The authors formulated two research questions in their study. First, "what is the influence of transition planning education and having a transition plan that specified postsecondary accommodations on the delivery of disability-related supports after high school" (Newman et al., 2016, p. 500). Second, "what is the effect of transition planning education and having a transition plan on the delivery of supports to the general postsecondary student body" (Newman et al., 2016, p. 500).

The present study included approximately 1,210 youth who had at least one parent or youth interview or survey after leaving high school that reported postsecondary school attendance and a school program survey from which high school transition-planning information could be determined. Using quantitative analysis methods, the authors tested the effects of

transition planning education and of having a transition plan specifying the need for postsecondary accommodations on the odds of students obtaining disability-specific and generally available supports during postsecondary school. Results showed that providing transition planning education in high school to students with disabilities and those students having a transition plan specifying appropriate accommodations significantly increased the probability students with disabilities at 2-year colleges sought out and used both disability-specific and generally available postsecondary supports.

The authors recommended further research to examine and determine characteristics of effective transition-planning education, such as the specific area of content and the length of instructional material being taught. The authors also suggested assessing whether receiving supports in postsecondary school contributes to a higher likelihood that those students with disabilities will complete their programs. According to Newman et al. (2011), only 34% of 4-year college students with disabilities graduated from their program, compared to 51% of their peers in the general population (as cited in Newman et al., 2016). A limitation of this study was that it covered secondary analysis of the NLTS2 study. Another limitation was the rate of supports received may have been underreported because parents may have been unaware of the actual types of supports received (e.g., tutoring, writing centers, extended time to complete examination).

Wagner, Newman, and Javitz (2016) examined the relationship between career and technical education (CTE) courses taken and later employment for youth with LD using data from the NLTS2. The authors addressed two questions: “a) what were the CTE participation rates of high school students with LD, and b) what were their post-high school employment

experiences” (Wagner et al., 2016, p. 659). The authors formed the hypotheses that the impacts of high school employment-related experiences, including CTE courses taken, would have a greater impact on students as adults post high school graduation.

This study included approximately 450 youth who were identified as receiving special education services in the LD category, among the 95.7% of youth with LD who attended regular secondary schools, and had at least one parent or youth interview after leaving high school. Measures of CTE course taking came from high school transcripts. Measures of post-high school outcomes came from the parent/youth interview conducted twice per year from 2001 to 2009 as part of NLTS2.

Analysis in this quantitative study showed that almost all students with LD (96.0%) took at least one CTE course during high school. Further, 90.4% of youth with LD had worked for pay at some time since graduating high school. This percentage was close to the rate of peers without disabilities (91.0%) who had worked for pay. However, significantly fewer youth with LD (74.2%) had worked full-time in that period. Finally, results demonstrated that earning a concentration of four or more general education CTE credits did significantly predict full-time employment in the first 2 post-high school years, but not later as hypothesized by the authors.

The authors recommended that students with LD who have a transition goal of obtaining full-time competitive employment should be encouraged to include a concentration of general education CTE course specific to an occupation of interest. The authors noted the challenge of scheduling such courses in a student’s high school career and further suggested that planning should start as early as possible. Another recommendation was stated in regards to transition planning including discussion of supports students with LD need to succeed in their academic



courses as well as to prepare for a career post-high school graduation. Limitations of this study included the following: some analyses were based on self-report (e.g., employment characteristics), propensity scoring, and measures of covariates.

Table 1

*Summary of the Literature*

AUTHORS	STUDY DESIGN	PARTICIPANTS	PROCEDURE	FINDINGS
Ankeny, Wilkins, & Spain (2009)	Qualitative	Four mothers who had conducted a panel presentation at a local professional conference about their experiences as mothers of children with disabilities.	Interviews were conducted by using a semi-structured interview protocol. Cross comparisons were made by comparing participant's responses to the same question.	Three themes emerged: 1) goals and barriers to independence in adulthood, 2) transition as an ongoing process, and 3) importance of communication and support from teachers.
Collet-Klingenberg & Kolb (2011)	Qualitative	Special educators in rural Wisconsin	Authors asked participants to report their perception of transition program component importance and their satisfaction with program implementation.	Lack of transportation funding, competitive employment, and postsecondary options limited school-community instruction for students with disabilities.
Gonzalez, Rosenthal, & Kim (2011)	Quantitative	30,265 individuals with a primary disability of specific learning disability (SLD)	Quantitative analysis was used to extract predictive information for rehabilitation outcomes of individuals with SLD.	The most observable indicator of successful employment was public support.

Table 1 (continued)

AUTHORS	STUDY DESIGN	PARTICIPANTS	PROCEDURE	FINDINGS
Hartwig & Sitlington (2008)	Qualitative	Five employers were randomly selected from members of a chamber of commerce.	Authors asked employers' opinions to determine the effect that different types of diplomas may have on the employment of young adults with disabilities.	Generally, employers were willing to look at a prospective employee's individual characteristics and not the type of diploma he/she held when considering him/her for employment.
Lindstrom, Doren, & Miesch (2011)	Qualitative	Eight young adults who had a documented disability and received special education services, participated in a school-to-work transition program for at least 1 year, and exited high-school between 1996 and 2001.	Data collection occurred over a 4-year timeframe through systematic interviews.	Family expectations, work experience during high school, and transition services led these individuals to employment or postsecondary training.
Miller-Warren (2016)	Quantitative	Twenty-four parents of individuals with disabilities	A closed-ended survey was mailed to the participants that asked questions regarding their experiences with the secondary transition planning process and the postsecondary outcomes of the graduates.	Majority of the children participated in career preparation courses in high school; however, only a small percentage of children engaged in self-care and self-advocacy courses during high school. Half of the graduates were currently employed while the other half were unemployed.

Table 1 (continued)

AUTHORS	STUDY DESIGN	PARTICIPANTS	PROCEDURE	FINDINGS
Murray & Doren (2013)	Quantitative	Two hundred twenty-two students were recruited from three high schools and 18 classrooms (grades 9-12).	Students in the intervention group received instruction in the Working at Gaining Employment Skills (WAGES) curriculum.	WAGES can improve prevocational and social skills of adolescents with disabilities. Students in the intervention condition showed greater empathy, cooperation, and self-advocacy skills.
Newman, Madaus, & Javitz (2016)	Quantitative	1,210 of the 11,000+ youth from the initial NLTS2 sample	Data source was the school program surveys completed by high school staff who were most knowledgeable about students' overall school program.	Both delivery of transition planning education in high school and having postsecondary accommodation specified on high school transition plans significantly increased the odds of students with disabilities at 2-year colleges seeking and using disability-specific supports and generally available supports.
Seo, Abbott, & Hawkins (2008)	Quantitative	Five hundred seventy-one students selected from a previous longitudinal study	Analyzed data from self-report surveys collected from participants with and without SLD annually from Grades 5 to 10, at Grade 12, and at age 21 and 24.	When compared to their peers without SLD, young adults with SLD made great progress in their employment and earned income after high school graduation. No significant difference in employment status and earned income at age 21 or at age 24.

Table 1 (continued)

AUTHORS	STUDY DESIGN	PARTICIPANTS	PROCEDURE	FINDINGS
Wagner, Newman, & Javitz (2016)	Quantitative	Four hundred-fifty of the 11,000+ youth from the initial NLTS2 sample, and who had been identified as SLD.	High school student transcripts collected and parent/youth survey completed as source of employment outcomes.	Earning four or more CTE credits did significantly predict full-time employment in the first two years after high school.

### **Chapter 3: Conclusions and Recommendations**

The purpose of this paper was to examine the correlates in secondary transition planning for successful outcomes of high school graduates with mild disabilities. Chapter 1 provided background information on the topic and Chapter 2 presented a review of the research literature. In this chapter, I discuss findings, recommendations and implications from the research findings.

#### **Conclusions**

I reviewed 10 studies that investigated either evidence-based practices in the areas of secondary transition or post-high school outcomes for high school graduates with mild disabilities. Six of the studies examined best practices in the transition planning process (Ankeny et al., 2009; Collet-Klingenberg & Kilb, 2011; Lindstrom et al., 2011; Murray & Doren, 2013; Newman et al., 2016; Wagner et al., 2016) and four examined post-school outcomes (Gonzalez et al., 2011; Hartwig & Sitlington, 2008; Miller-Warren, 2016; Seo et al., 2008).

Three of 10 research studies concluded that secondary transition should be an ongoing, collaborative process that is age-appropriate and student-centered. Ankeny et al. (2009) showed the importance of communication and support from teachers. Lindstrom et al. (2011) demonstrated that family expectations, work experience during high school, and transition services led to employment or postsecondary training immediately following high school. Further, results showed that a student's transition plan specifying appropriate accommodations significantly increased the probability students with disabilities at 2-year colleges used disability-specific and generally available supports (Newman et al., 2016).

Two of 10 research studies investigated the effects of specific curriculum or type of courses taken during students' with disabilities high school career. Murray and Doren (2013)

found that exposure to the WAGES curriculum can improve vocational outcome expectations among students with disabilities; in addition, students demonstrated more empathy, cooperation, and self-advocacy post intervention. Wagner et al.'s (2016) results demonstrated that taking four or more general education CTE credits significantly predicted full-time employment in the first 2 years after high school.

One of 10 research articles illustrated barriers in transition programming and provision of transition services within a school located in rural Wisconsin. Findings suggested that lack of transportation funding, few competitive work opportunities, and minimal connection or communication between the high school and postsecondary institutions limited the school-to-community instruction (Collet-Klingenberg & Kilb, 2011). Although these findings are from a limited sample, the authors stated that they believe rural special education in the U.S. has more commonalities than differences.

One of 10 research articles examined employer perspectives on type of diploma earned by high school graduates with disabilities. Hartwig and Sitlington (2008) found that overall employers were willing to consider a prospective employee's individual characteristics and not the type of diploma he or she had earned. However, the employability of graduates who had earned certificates of completion, attendance, or achievement was much lower than those with a standard diploma, occupational diploma, or GED. In other words, employers were more willing to hire a candidate who had earned a standard high school diploma, occupational diploma, or GED.

One of 10 research articles examined parent perceptions about the secondary transition planning process and postsecondary outcomes investigated by Miller-Warren (2016). Findings

showed that of 24 parents of graduates with mild disabilities, only half of them were employed (Miller-Warren, 2016). These graduates completed high school with a standard diploma, an occupational diploma, or a certificate of completion in 2011. Further analysis revealed these same graduates participated in career exploration courses during high school, however did not receive instruction in the area of self-advocacy or self-determination (Miller-Warren, 2016).

Two of the 10 research articles investigated outcomes of adults with specific learning disabilities (SLD). Seo et al. (2008) found no significant difference in high school completion or in postsecondary enrollment between students with SLD and their non-disabled peers. Further, the two groups did not differ in employment status, earned income, or parenting children at both age 21 and age 24 (Seo et al., 2008). Gonzalez et al. (2011) analyzed the Rehabilitation Services Administration (RSA) data for 2007 and concluded that young adults with SLD make up a small percentage (5.0%) of individuals receiving services from state and federal vocational rehabilitation agencies. These findings are comparable to Seo et al. (2008) results that indicated no significance difference of receiving public assistance between students with SLD and their non-disabled peers at age 24; however, there was a slight higher proportion of SLD students who had received assistance at age 21.

### **Recommendations for Future Research**

Four of the 10 studies listed small sample size as a limitation. A small sample size may not be representative of the larger population. Three of the 10 studies indicated the demographic location of the United States as a limitation. Although Collet-Klingenberg and Kilb (2011) stated their opinion regarding rural special education in the U.S. has more commonalities than

differences, further research should explore similarities and differences between special education transition planning in rural and urban schools.

In the Murray and Doren (2013) study, all participants were students with disabilities and did not include same-age, non-disabled peers. The authors recommended further research to examine the long-term effects of WAGES on employment or post high school outcomes. Although Miller-Warren (2016) obtained parent perspectives of their children's transition planning process and reported on outcomes after graduation, the author did not obtain the graduates' own perspectives or experiences with regards of their transition plan. A common limitation of Newman et al. (2016) and Wagner et al. (2016) is their findings were extracted through secondary analysis of the National Longitudinal Transition Study-2 (NLTS2) database.

### **Implications for Practice**

Transition planning is a career planning process that must be individualized to meet the exceptional needs of individual students with disabilities. From this literature review, I have found that successful transition planning involves an ongoing process of open-ended communication between stakeholders (including parents). Specifically, it is important for special education teachers to initiate conversations with students regarding their goals after high school graduation; further, show support toward meeting their individual goals by reaching out to parents and outside service providers like vocational rehabilitation counselors.

During my own work experience, I have learned that continuous communication with the local vocational rehabilitation counselor and workforce center has led to further opportunities for my students. For instance, a particular student is eligible for the college placement test fee be waived and provided transportation for a college visit at Central Lakes College. Prior to the



student receiving assistance from the counselor for the costs involved, the initial cost created a barrier for the student. In general, vocational rehabilitation has served as a gateway between the school and community in terms of informing my students of available supports and increases their involvement in seeking employment or postsecondary education and training.

Through this literature review, I have also learned students' self-determination is an important focus of transition planning. Good transition planning includes person-centered approach focusing on the student's individual strengths and weaknesses. This requires the student to be an active participant in the planning process; however, some students struggle with demonstrating good self-awareness and leadership skills. Sometimes, self-determination can be improved by teaching the skills to self-advocate and make decisions. As an educator, I will continue to encourage my students to show leadership skills in their transition planning, as well as research self-determination approaches and explore the WAGES curriculum as cited in Murray and Doren (2013).

### **Summary**

For students, whether they have a disability or not, high school is a period of time when they develop self-awareness and explore career interests for post high school. Students with disabilities are eligible for additional support through special education and the transition planning process. In order for high school graduates with mild disabilities to be successful in adulthood, they need a strong support system that involves collaboration. Fostering positive adult outcomes needs advocacy from teachers and parents, self-determination of the student, and person centered planning during the middle and high school years.

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