Hammill Institute on Disabilities

Career Development and Transition for Exceptional Individuals
2021, Vol. 44(1) 47–64

DOI: 10.1177/2165143420959793
cdtei.sagepub.com


Secondary Transition Predictors of Postschool Success: An Update to the Research Base

Valerie L. Mazzotti, PhD[1], Dawn A. Rowe, PhD[2], Stephen Kwiatek, MS[1], Ashley Voggt, PhD[1,3], Wen-Hsuan Chang, MA[1], Catherine H. Fowler, PhD[1], Marcus Poppen, PhD[4], James Sinclair, PhD[5], and David W. Test, PhD[1]

Abstract

Research suggests youth with disabilities are less likely to experience positive outcomes compared to peers without disabilities. Identification of in-school predictors of postschool success can provide teachers (e.g., special education, general education, career technical education), administrators, district-level personnel, and vocational rehabilitation counselors with information to design, evaluate, and improve transition programs. The purpose of this systematic literature review was to examine secondary transition correlational literature to identify additional evidence to support existing predictors and identify new predictors of postschool success. Results provided additional evidence for 14 existing predictors and identified three new predictors. Limitations and implications for research, policy, and practice are discussed.

Keywords

predictors, secondary transition, students with disabilities, correlational research, postschool outcomes

From 1987 to present, the U.S. Department of Education funded a series of National Longitudinal Transition Studies (NLTS; i.e., NLTS, NLTS2, NLTS 2012), which followed several cohorts of youth with disabilities during and after high school. Descriptive data collected by these studies provided information to help the field of secondary transition understand how in-school experiences of youth with disabilities impact their in-school and postschool outcomes. Historically, students with disabilities do not experience postschool success at the same rates as their peers without disabilities, with disparities in the areas of employment, postsecondary education, and independent living (Newman et al., 2011; Sanford et al., 2011). These trends continue today. National data show gaps between youth with and without disabilities enrolling in higher education (National Center for Education Statistics, 2019) and attaining a bachelor's degree (U.S. Census Bureau, 2016). In addition, data from the U.S. Bureau of Labor Statistics (2018) indicated people with disabilities who received a bachelor's degree were 3 times less likely to be employed, compared to people without disabilities. These outcomes, combined with other influencers (e.g., poverty, culture, marginalization), indicate many youth with disabilities are not accessing the necessary transition-related instruction and supports in school to be successful post school (Trainor et al., 2020).

Multiple researchers have synthesized experimental research (i.e., group, single case) over the years to identify effective practices to teach skills for secondary students with disabilities (e.g., Gilson et al., 2017; Rowe et al., in press; Test, Fowler, et al., 2009). A limitation of this research is many of the experimental studies have not attempted to measure the impact of skill acquisition on postschool outcomes. This limitation ignited the interest in examining the correlational literature to better understand what in-school factors correlate to outcomes after high school (e.g., enrollment in postsecondary education, competitive employment, community access and integration). Correlational research can support the field in understanding factors that influence transition program development, improvement, and evaluation (Rowe et al., 2015).

Research has produced a consistent set of predictors of in-school activities that positively correlate with postschool success in education, employment, and independent living (e.g., career technical education, inclusion in general

[1]The University of North Carolina at Charlotte, USA
[2]East Tennessee State University, Johnson City, USA
[3]Texas A&M University-Corpus Christi, USA
[4]Washington State University, Pullman, USA
[5]University of Oregon, Eugene, USA

Corresponding Author:
Valerie L. Mazzotti, The University of North Carolina at Charlotte, 9201 University City Boulevard, Charlotte, NC 28223-0001, USA.
Email: vlmazzot@uncc.edu

education, life skills instruction, paid employment/work experience, self-determination skill instruction). First, Test, Mazzotti, et al. (2009) identified 16 predictors of postschool employment, education, and independent living success. The 16 predictors included (a) four predictors positively correlated to all three outcome areas (i.e., inclusion in general education, paid employment/work experience, self-care/independent living skills, student support); (b) seven predictors positively correlated to postschool education and employment (i.e., career awareness, interagency collaboration, occupational courses, self-advocacy/self-determination, social skills, transition program, vocational education); and (c) five predictors positively correlated to postschool employment (i.e., community experiences, exit exam requirements/high-school diploma status, parental involvement, program of study, work study).

Building on this work, Haber et al. (2016) conducted a meta-analysis to assess the strength of the Test, Mazzotti, et al. (2009) predictors updating the search through May 2010. They found statistically significant effects for career technical education, interagency collaboration, inclusion in general education, self-determination, and paid-employment/work experience on both postschool employment and education outcomes. These results are of practical importance because the predictors can provide schools, districts, and state education agencies with information on factors that can guide secondary transition program development (Rowe et al., 2015). More recently, Mazzotti et al. (2016) conducted a systematic review of the literature conducting secondary analyses of the NLTS2 data set to extend predictor findings originally identified by Test, Mazzotti, et al., 2009 and identify new in-school predictors of postschool success for youth with disabilities. Results identified four new predictor categories: goal setting, parent expectations, travel skills, and youth autonomy/decision-making.

Although these three previous reviews identified 20 predictors of postschool outcomes, each noted limitations of their analyses. First, they noted the need to disaggregate results by demographic categories (e.g., disability, race/ethnicity). Second, they noted many correlational studies were exploratory (i.e., hypotheses were not formulated prior to conducting analysis) and did not use rigorous designs (e.g., propensity score analysis [PSA]; Rojewski et al., 2014), limiting the extent to which they could contribute to the evidence base. Finally, they suggested future reviews should include studies that used databases beyond NLTS2. Therefore, the purpose of this systematic literature review was to update the secondary transition correlational literature published since Test, Mazzotti, et al. (2009) to identify (a) additional evidence to support existing predictors of postschool success and (b) new predictors of postschool success for youth with disabilities. Our research questions were as follows: Is there additional evidence to support existing predictors of postschool success? Is there evidence to support new predictors of postschool success? What is the level of evidence for each existing and new predictor of postschool success?

Method

Selection Procedures

We conducted an electronic search using the EBSCO Host search engine to identify all articles published between April 2009 and January 2019 that used correlational research methods to investigate the relationship between secondary transition in-school predictors and postschool outcomes (i.e., postsecondary education, employment, independent living). These dates reflect articles published after the Test, Mazzotti, et al. (2009) review. We searched the following databases: Academic Search Premier, Educational Administration Abstracts, CINAHL with Full Text, Education Research Complete, Educational Resources Information Center (ERIC), MasterFILE Premier, MiddleSearchPlus, PsycARTICLES, PsycINFO, and Vocational and Career Collection. We used full and truncated versions of the following search terms: *correlation, correlate, correlational, predictor, relationship, students, youth, adolescents, young adults, disability, middle school, high school, transition, secondary transition, education, special education, outcomes, postschool, postsecondary, postschool outcomes, in-school, postsecondary education, employment, independent living*, and *quality of life*. In addition to the electronic search, we conducted a hand search of the following peer-reviewed journals in special education: *Career Development and Transition for Exceptional Individuals, Exceptional Children, Focus on Autism and Other Development Disabilities, Intellectual & Developmental Disabilities, Journal of Rehabilitation, Journal of Vocational Rehabilitation, Rehabilitation Counseling Bulletin, Remedial and Special Education*, and *The Journal of Special Education*.

Inclusion/Exclusion Criteria

We first identified articles by assessing titles and abstracts. Next, we screened each article's method section to determine whether the article used a methodology that reflected a correlational design. To assess for eligibility, we conducted a full-text review of each correlational article and coded remaining articles for quality (i.e., methodological rigor). Finally, we conducted data analysis coding of final articles to be included in this systematic review.

Identification. To be included in this review, studies had to include (a) in-school, transition-related program(s) or practice(s) as predictor variables and (b) outcome variable(s) related to postschool employment, education, independent living, and/or quality of life. In addition, participants must

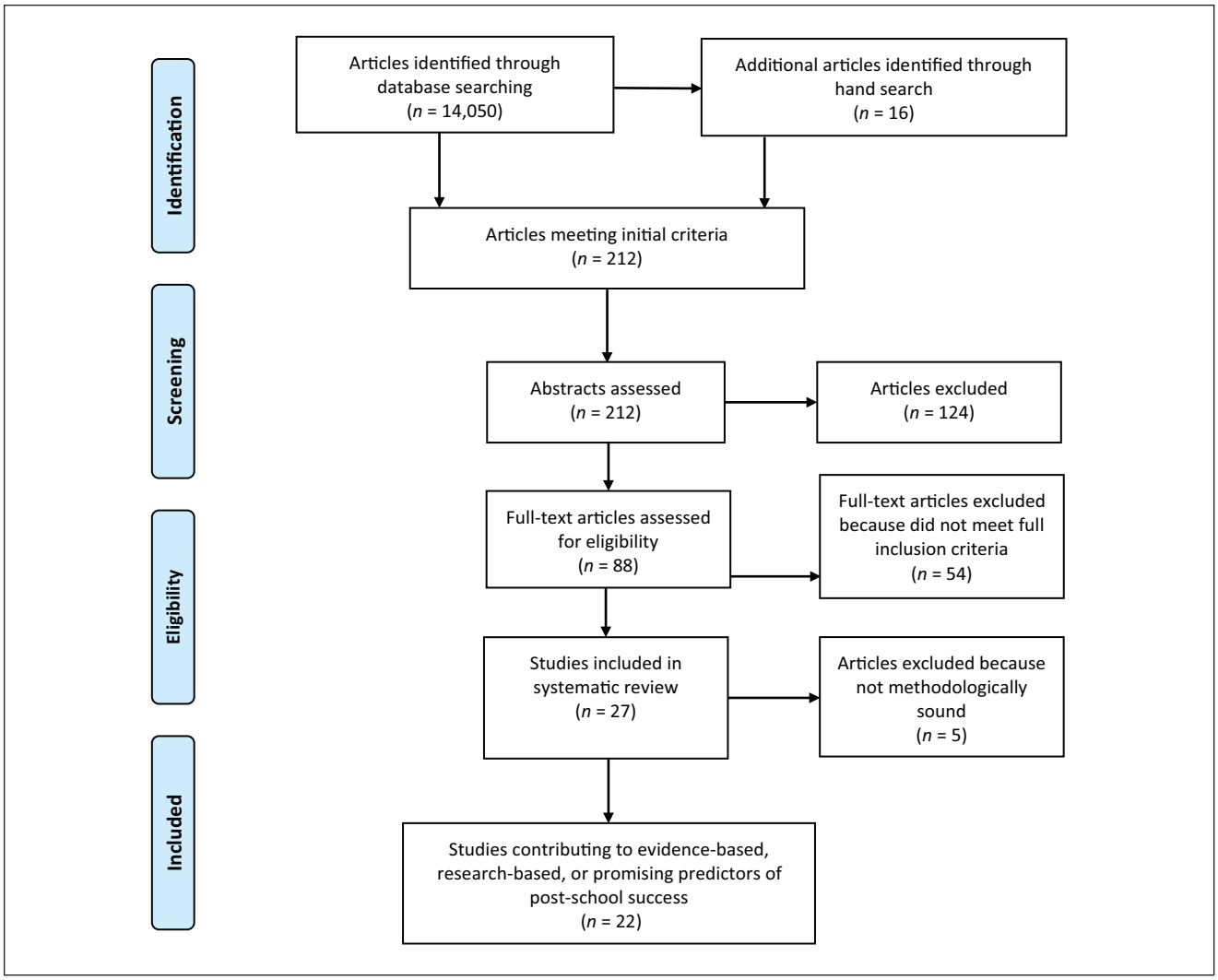

Figure 1. Predictor systematic literature review flowchart adapted from Moher et al. (2009).

also have been served under the Individuals with Disabilities Education Improvement Act (IDEIA, 2004). These inclusion criteria were consistent with previous reviews (i.e., Mazzotti et al., 2016; Test, Mazzotti, et al., 2009). The initial search yielded 14,066 articles. After titles and abstracts were scanned, we excluded 13,854 articles because they were (a) expert opinion, (b) literature reviews, (c) program evaluations, or (d) international studies. Figure 1 provides the literature review flowchart.

Screening. Next, we screened the method sections of the remaining 212 articles to determine type of methodology used. To be included, articles had to use a methodology that reflected a correlational design (e.g., logistic regression; structural equation modeling; hierarchical multiple regression, reflecting correlations of predictors with outcome variables). Two authors were randomly assigned the 212 articles to identify type of methodology. When discrepancies arose between the two authors for a specific study, the first author convened a meeting to come to consensus on whether or not the article used a correlational design and should be included in the review. We excluded 124 articles because the articles did not use correlational designs (i.e., experimental, qualitative, descriptive only). This resulted in 88 articles for full-text coding.

Eligibility. We reviewed the full text of the 88 articles to determine final eligibility for inclusion in this systematic literature review. After full-text review of the 88 studies, we excluded 54 studies because the (a) outcome variables were not postschool (e.g., in-school summer work experiences; $n = 14$); (b) the predictor variables were only demographic (e.g., gender, race/ethnicity, disability; $n = 7$); (c) participants were not served under IDEIA ($n = 14$); (d) the study was descriptive and used univariate methods with no correlational analysis ($n = 14$); (e) assessment validation was

the focus versus postschool outcomes ($n = 3$); and/or (f) the study included no significant positive or negative findings ($n = 2$). We calculated interrater reliability for 47 (53%) of the 88 studies by dividing the number of agreements by the total of agreements plus disagreements multiplied by 100. Interrater reliability was 98.7%. We examined the remaining 34 studies for quality (i.e., methodological rigor).

Quality coding. We coded the remaining 34 studies for quality using the National Technical Assistance Center on Transition's (NTACT, 2017) quality indicator checklist for correlational research (Thompson et al., 2005; see Figure S2 in supplemental materials). One charge of NTACT is to identify evidence-based/research-based predictors of postschool success. NTACT's processes for identifying predictors align with recommendations from the field (i.e., Gemici et al., 2012; Institute for Education Sciences, What Works Clearinghouse, 2015, 2020; Thompson et al., 2005).

Of the remaining 34 studies, two (i.e., Baer et al., 2011; Flexer et al., 2011) were included in Haber et al. (2016). These two studies were included as part of this review because they had not been reviewed for quality or included as part of the predictor research base identified by Test, Mazzotti, et al. (2009) or Mazzotti et al. (2016). We excluded 10 studies because they were included in the Mazzotti et al. review; therefore, they were not recoded as part of this review as they were already documented as part of the predictor research base. Finally, two studies were excluded because they did not meet quality indicator criteria for correlational research. Interrater reliability for quality coding was conducted on 30% of studies by dividing the number of agreements by the total of agreements plus disagreements multiplied by 100. Interrater reliability for quality was 96.0%. We coded the remaining 22 studies for content to analyze study data.

Data analysis coding. We analyzed the final 22 studies to identify (a) predictors that build on findings from Test, Mazzotti, et al. (2009) and Mazzotti et al. (2016) and (b) new predictors of postschool success. We coded the 22 studies for content, which also included recording effect sizes for each study variable. Finally, we applied NTACT's levels of evidence criteria for correlational research to each study to identify the level of evidence for each existing or newly identified predictor (i.e., evidence-based, research-based, promising; see Figure S1 in supplemental materials for NTACT's levels of evidence criteria).

Data analysis. After coding for quality was complete, we coded each correlational study to analyze data. We analyzed each study independently and coded all variables using an NTACT (2015, 2017) researcher-developed coding form to code correlational studies. Three researchers and five doctoral students coded studies, which were randomly assigned. First, we examined and coded the 22 studies for the following: (a) whether predictor variables supported an existing predictor or constituted a new predictor; (b) research setting; (c) participant demographics (i.e., age, disability, race/ethnicity); (d) type of correlational design (i.e., multivariate exploratory, multivariate theoretically driven [*a priori*], *PSA*); and (e) type of analysis used (e.g., logistic regression, multiple regression).

Next, we coded predictor and outcomes variables for each study. We coded all statistically significant and nonsignificant positive and negative findings. This process included coding (a) predictor description (i.e., operationalizing each predictor variable identified in study), (b) predictor variable based on the 20 predictors identified by Test, Mazzotti, et al. (2009) and Mazzotti et al. (2016), (c) outcome variable (i.e., education, employment, independent living), (d) outcome type (e.g., employment status, hours worked, quality of life, college GPA), (e) type of analysis (e.g., logistic regression), (f) degree of relationship (e.g., reported odds ratio, R^2), (g) total *n* reported, (h) standard error, (i) statistical significance (i.e., *p* value), and (j) effect size (i.e., converted to Pearson's *r*). The majority of studies in this review ($n = 20$) reported logistic regression results. As noted in Mazzotti et al. (2016), "odds ratios are centered on 1 as opposed to 0, meaning that 1 indicates no relationship" (p. 198). To address this, we converted odds ratios to an approximated Pearson's *r* (Lipsey & Wilson, 2001, p. 53) using the DeCoster and Iselin (2005) Odds Ratio to *r* Statistical Calculation Spreadsheet to calculate effect sizes. Pearson's *r* allowed for comparisons between current research findings and findings from Test, Mazzotti, et al., 2009 and Mazzotti et al., 2009. Based on recommendations from Lipsey and Wilson (2001), we interpreted the magnitude of effect based on $r \leq .10$ (small), $r = .25$ (medium), and $r \geq .40$ (large). Two studies reported standardized regression coefficients (SRC; i.e., betas) for individual predictor variables (Rabren et al., 2014; Shogren et al., 2017). SRCs present an effect size that represents a change in the dependent variable with one standard deviation change for the independent variable (Nieminen et al., 2013). For SRCs, we interpreted the magnitude of effect for semi-partial correlations based on $r \leq .10$ (small), $r = .25$ (medium), and $r =\geq .40$ (large; Lipsey & Wilson, 2001). We calculated interrater reliability for data analysis coding on 31.8% of articles by dividing the number of agreements by the total of agreements plus disagreements multiplied by 100. Interrater reliability was 97.6%.

Determination for levels of evidence. The last step in the data analysis process was to determine levels of evidence for each predictor. We categorized findings in three ways: (a) evidence-based, (b) research-based, and (c) promising predictors. Evidence-based predictors are

supported by a minimum of two methodologically sound *a priori* (i.e., planned, stated hypothesis) studies using a quasi-experimental correlational design (i.e., *PSA*) that (a) demonstrated consistent statistically significant positive correlations between predictor and outcome variables, (b) calculated effect size or reported data that allowed for effect size calculation, and (c) included no evidence from a methodologically sound *a priori* study demonstrating negative correlations between predictor and outcome variables. Research-based predictors are supported by a minimum combination of two methodologically sound *a priori* studies that (a) demonstrated consistent statistically significant positive correlations between predictor and outcome variables, (b) calculated effect size or reported data that allowed for calculation, and (c) included more methodologically sound *a priori* studies demonstrating positive correlations than methodologically sound *a priori* studies demonstrating negative correlations. Promising predictors are supported by one methodologically sound *a priori* study with consistent statistically significant positive correlations between predictor and outcome variables or a minimum of two methodologically sound *exploratory* (no planned hypothesis) studies with statistically significant positive correlations between predictor and outcome variables. NTACT's level of evidence criteria can be found in Figure S1 in supplemental materials.

Results

Twenty in-school predictors of postschool success were identified in prior reviews by Test, Mazzotti, et al. (2009) and Mazzotti et al. (2016). A total of 22 studies met inclusion criteria for this systematic correlational literature review. Of the 22 studies, 11 were *exploratory*, seven were *a priori*, and four were *a priori with PSA*. Of the 22 studies, one examined data from the Educational Longitudinal Study of 2002 (i.e., Rojewski et al., 2014), five studies examined data from state-level databases (i.e., Baer et al., 2011; Daviso et al., 2016; Flexer et al., 2011; Rabren et al., 2014; Simonsen & Neubert, 2013), and 16 studies examined data from the NLTS2 database (e.g., Cmar, 2015; Connors et al., 2014; Petcu et al., 2017; Shogren et al., 2017). The current review included no additional evidence for six predictors (i.e., career awareness, community experiences, interagency collaboration, occupational courses, parent involvement, travel skills) and additional evidence for 14 predictors. In addition, this review identified three new predictors (i.e., psychological empowerment, self-realization, technology skills) of positive postschool outcomes for youth with disabilities. Our results also found that 11 of the 22 studies focused on one specific disability group, including deaf/blindness (Cmar, 2015); (b) deaf/hard of hearing (Newman, Marschark, et al., 2016); (c) visual impairments (Connors et al., 2014; Zhou et al., 2013); (d) intellectual disability (Park & Bouck, 2018; Simonsen & Neubert, 2013); (e) specific learning disabilities (Wagner et al., 2015); and (f) autism spectrum disorder (Shattuck et al., 2012; Wei et al., 2015, 2016, 2017).

Overall Effects

Of the 22 studies, the overall magnitude of effect ranged from $r = 0.02$ (small) to $r = 3.74$ (large) with a mean effect size of $r = 0.42$ (large) and median effect size of $r = 0.34$. There were 10 (10.3%) small effects, 42 (43.3%) medium effects, and 45 (46.4%) large effects. Effect sizes by variable for each study are provided in Table 1.

Evidence for Existing Predictors

This review provides additional support for career and technical education (CTE; previously vocational education), exit exam/high-school diploma status, goal-setting, inclusion in general education, paid employment/work experience, parent expectations, program of study, self-care/independent living skills, self-determination/self-advocacy, social skills, student support, transition program, work study, and youth autonomy/decision-making as in-school predictors of postschool success. Based on NTACT's levels of evidence for correlational research (see Figure S1 in supplemental materials), goal-setting, parent expectations, program of study, student support, and youth autonomy/decision-making moved from a promising predictor to a research-based predictor, and CTE moved from a research-based predictor to an evidence-based predictor. For the remaining six existing predictors (i.e., career awareness, community experiences, interagency collaboration, occupational courses, parent involvement, travel skills), no change in level of evidence was identified. Table 1 details demographics, predictor and outcome variables, and effect sizes for each study. Table 2 summarizes predictors across prior reviews.

CTE. Participation in CTE was identified as an evidence-based predictor of postschool employment and a research-based predictor of postschool education. The addition of one *a priori* study *with PSA* (Newman, Marschark, et al., 2016) affected the level of evidence for postschool education. The addition of two *a priori* studies *with PSA* (Newman, Marschark, et al., 2016; Wagner et al., 2015), three *a priori* studies (Daviso et al., 2016; Flexer et al., 2011; Rabren et al., 2014), and one *exploratory* study (Park & Bouck, 2018) changed the level of evidence for postschool employment. Effect sizes ranged from small to large. Examples of CTE from the contributing studies included providing job readiness training (Flexer et al., 2011) and ensuring students with disabilities are CTE concentrators (Park & Bouck, 2018).

Table 1. Summary of Results for Studies Contributing to the Evidence for Predictors of Postschool Success.

Reference	Demographic information (*n*[a])	Predictor variable[b]	PSO variable[c]	Relationship[d] (Sig. level)	Effect size
Baer et al. (2011) *a priori*	409 (i.e., 321 ID, 88 MD; 212 males, 196 females; 243 White, 149 Black, 13 Other)	Inclusion	PSE enrollment	1.94 ($p = .004$)	0.26
Cmar (2015) *exploratory*	100 (i.e., 100 D/B; Ethnicity not specified)	Youth ever worked for pay in HS	Employment (held any paid job)	2.96 ($p < .05$)	0.40
		Parent expected youth would get a paid job and earn enough to be self-supporting after HS		1.59 ($p < .01$)	0.18
		Youth received career counseling, help finding a job, job skills training, or vocational education services at any time during HS	Employment (held job for more than 6 months after HS)	2.65 ($p < .05$)	0.37
		Parent expected youth would get a paid job and earn enough to be self-supporting after HS		1.68 ($p < .01$)	0.20
Connors et al. (2014) *exploratory*	460 (i.e., 460 VI; 258 males, 202 females; 308 White, 55 Hispanic, 93 Black)	Paid work experience in HS	Employment and PSE (working for pay or attending PSE [i.e., success after high school])	3.60 ($p < .05$)	0.47
		HS completion (graduated or earned a certificate)		3.33 ($p < .05$)	0.44
Daviso et al. (2016) *a priori*	4,952 (i.e., 1,168 SLD, 66 ED, 185 OHI, 56 MD; Ethnicity not specified)	Students with LD who had three or more semesters of CTE	Employment (working for minimum wage or higher for 35+ hours per week for 3+ months)	1.40 ($p < .05$)	0.13
		Students with LD who received credit or were excused from classes to work while in HS		1.34 ($p < .05$)	0.11
		Students with OHI who received credit or were excused from classes to work while in HS		2.15 ($p < .05$)	0.29
		Students with OHI who received credit or were excused from classes to work while in HS		2.06 ($p < .05$)	0.28
		Students with MD who participated in work experiences under the supervision of job training coordinators	Employment (working for minimum wage or higher for 20+ hours per week)	3.28 ($p < .05$)	0.44
		Students who had three or more semesters of CTE (SLD/female)	Employment (working for minimum wage or higher for 35+ hours per week for 3+ months)	0.60 ($p < .05$)	–0.20
		Students who had three or more semesters of CTE (SLD/AA)		0.51 ($p < .05$)	–0.26
		Students who had three or more semesters of CTE (OHI/female)		0.63 ($p < .05$)	–0.18
		Students who received credit or excused from classes to work while in high school (SLD/female)		0.58 ($p < .05$)	–0.21
		Students who received credit or excused from classes to work while in high school (SLD/AA)		0.48 ($p < .05$)	–0.28
Flexer et al. (2011) *a priori*	1,540 (i.e., 879 SLD, 321 MR, 88 MD, 78 ED; 963 males, 577 females; 1129 White, 334 AA, 55 Other, 22 Missing)	Inclusion (80% or more per day in general education)	PSE (full-time enrollment in 2- or 4-year college for 8 or more credits within 1 year of leaving HS)	3.14 ($p = .000$)	0.42
		Students who had three or more semesters of CTE	Employment (full-time working 35+ hours per week for competitive pay within in 1 year of leaving HS)	1.73 ($p = .000$)	0.21
		AA students with IDD who had three or more semesters of CTE		1.87 ($p = .042$)	0.24
		Students who participated in any work study programs		1.37 ($p = .022$)	0.12
		AA students with IDD participated in any work study programs		1.91 ($p = .034$)	0.25
		Inclusion (participating in regular classes at least 80% of the time; IDD)	PSE (full-time enrollment in 2- or 4-year college for 8 or more credits within one year of leaving HS)	0.47 ($p = .000$)	–0.29
		Students who had three or more semesters of CTE (female)	Fulltime employment: working 35+ hours per week for competitive pay within in one year of leaving high school	0.73 ($p = .006$)	–0.47
		Students who had three or more semesters of CTE (AA)		0.38 ($p = .000$)	–0.36
		Students who had three or more semesters of CTE (IDD)		0.58 ($p = .000$)	–0.21
		Students participated in any work study programs (females)		0.69 ($p = .001$)	–0.14

(continued)

Table 1. (continued)

Reference	Demographic information (*n*[a])	Predictor variable[b]	PSO variable[c]	Relationship[d] (Sig. level)	Effect size
		Students participated in any work study programs (AA)		0.36 ($p = .0001$)	–0.38
		Students participated in any work study programs (IDD)		0.72 ($p = .005$)	–0.13
Myers et al. (2015) *a priori*	17,818 (i.e., 17,818 ASD; 13,007 White, 1,567 Hispanic/Latinx, 2,672 Black/AA, 677 (Combined Other)	Youth had case manager to coordinate services	Independent living (i.e., youth who did not have a case manager in high school had increased risk of poor community participation 12 months after high school)	0.24 ($p < .05$)	–0.51
		Youth has case manager to coordinate services		0.38 ($p < .05$)	–0.36
		Higher cognitive functioning (i.e., counting change, looking up telephone numbers, using telephone, telling time; reading and understanding common signs)	Independent living (i.e., youth who had lower cognitive functioning in high school had increased risk of poor community participation 12 months after high school)	0.83 ($p < .05$)	–0.07
Newman & Madaus (2015) *exploratory*	2,470 (i.e., SLI, ID, ED, HI, VI, OI, OHI, ASD, TBI, MD/DB; AA, Hispanic, White)	Instruction in transition planning	PSE (receipt of disability-specific accommodations, modifications, or services in 2 yr college or community college)	3.09 ($p < .01$)	.42
		Postsecondary accommodations and supports specified on transition plan		2.48 ($p < .05$)	0.34
		Postsecondary accommodations and supports specified on transition plan	Postsecondary CTE (receipt of disability-specific accommodations, modifications, or services)	8.12 ($p < .05$)	0.69
		Self-realization	PSE (receipt of disability-specific accommodations, modifications, or services in 2 yr or community college)	0.81 ($p < .01$)	–0.08
Newman, Marschark, et al. (2016) *a priori with PSA*	440 (i.e., DHH; Ethnicity not specified)	Percent of overall credits earned in academic education courses	PSE (enrollment in 2-year college or community college)	4.99 ($p < .001$)	0.56
		Percent overall credits earned in academic education courses	PSE (enrollment in 4-year college or university)	5.37 ($p < .001$)	0.58
		Percent overall credits earned in academic education courses	PSE (enrollment in postsecondary CTE)	7.45 ($p < .001$)	0.67
		Completed algebra coursework	PSE (enrollment in 2-year college or community college)	2.87 ($p < .05$)	0.39
		Completed algebra coursework	PSE (enrollment in 4-year college or university)	3.57 ($p < .01$)	0.46
		Completed algebra coursework	PSE (enrollment in postsecondary CTE)	3.69 ($p < .05$)	0.48
		Percent overall credits earned in CTE courses	Enrollment in 4-year college or university	0.26 ($p < .01$)	–0.49
Newman, Madaus, & Javitz (2016) *a priori with PSA*	1,210 (i.e., SLI, ID, ED, HI, VI, OI, OHI, ASD, TBI, MD/DB; ethnicity not specified)	Instruction in transition planning	PSE (receipt of disability-specific accommodations, modifications, or services in 2-year college or community college)	3.70 ($p < .01$)	0.48
		Postsecondary accommodations and supports specified on transition plan		3.06 ($p < .01$)	0.42
		Postsecondary accommodations and supports specified on transition plan	PSE (receipt of disability-specific accommodations, modifications, or services in postsecondary CTE)	6.55 ($p < .01$)	0.64
		Instruction in transition planning	PSE (receipt of supports available to help with schoolwork [i.e., supports available to general student body; tutoring, writing,	3.68 ($p < .001$)	0.49
		Postsecondary accommodations and supports specified on transition plan	study centers] in 2 yr college or community college)	2.15 ($p < .05$)	0.29
		Instruction in transition planning	PSE (receipt of supports available help with schoolwork [i.e., supports available to general student body; tutoring, writing, study centers] in postsecondary CTE)	3.11 ($p < .05$)	0.42
Park & Bouck (2018) *exploratory*	64,096 (i.e., 46,233 Mild ID, 17,863 Mod ID; 15,863 ages 14-17, 46,971 ages 18–26; 45,817 White, 4,111 Hispanic/Latino)	Vocational skill instruction in job readiness training (combined mild/mod ID)	Employment (competitive employment)	7.36 ($p < .001$)	0.66
		Vocational skill instruction in looking for jobs (combined mild/mod ID)		7.95 ($p < .05$)	0.68
		Vocational skill instruction in job placement support (combined mild/mod ID)		5.37 ($p < .05$)	0.58
		Instruction in transition planning (combined mild/mod ID)		3.71 ($p < .05$)	0.48

(continued)

Table 1. (continued)

Reference	Demographic information (*n*[a])	Predictor variable[b]	PSO variable[c]	Relationship[d] (Sig. level)	Effect size
		Vocational instruction in job readiness training (mild ID)		67.48 ($p < .01$)	0.94
		In-school transition programs—Vocational instruction and placement support (mild ID)		6.06 ($p < .05$)	0.62
		Instruction in transition planning (moderate ID)		75.19 ($p < .01$)	0.95
		Instruction in transition planning (moderate ID)		10.57 ($p < .05$)	0.74
		Sheltered employment in transition plan (overall; mild and moderate ID)	Paid employment status	0.17 ($p < .05$)	–0.61
		Received of overall vocational instruction (mild ID)		0.13 ($p < .05$)	–0.67
		Vocational instruction in job skill training (moderate ID)		0.06 ($p < .01$)	–0.81
Petcu et al. (2017) *exploratory*	2,290 (i.e., 1,200 SLD, 100 ED, 620 OHI, 130 other; 1,480 males,750 females; 1,510 White, 400 AA, 280 Hispanic)	Psychological Empowerment	PSE (enrollment in 2-year community college)	3.19 ($p < .01$)	0.43
		Autonomy	PSE (enrollment in 4-year university)	1.42 ($p < .05$)	0.14
		Psychological Empowerment		9.98 ($p < .01$)	0.73
		Autonomy (females)		2.24 ($p < .01$)	0.31
		Autonomy	PSE (enrollment in postsecondary CTE)	1.52 ($p < .01$)	0.16
		Self-realization	PSE (completion of a 4-year university)	2.41 ($p < .01$)	0.33
Rabren et al. (2014) *a priori*	500 (i.e., 407 SLD, 93 ID; 327 males, 173 females; 424 Black/AA, 76 White)	High school job	Employment (employed any time in the first year after exiting high school)	0.83 SRC ($p < .001$)	0.83
		Student IEP indicated CTE	Employment (employed at time of leaving high school)	0.24 SRC ($p < .001$)	0.24
		Student IEP indicated CTE	Employment (employed anytime in the first year after high school for students who left high school unemployed)	0.07 SRC ($p < .001$)	0.07
Rojewski et al. (2014) *a priori*	2,097 (i.e., 390 SLD, 50 ED; 1,279 males, 818 females; 1,143 White, 371 Hispanic/Latino, 369 Black/AA, 63 Asian, 25 American Indian or Alaska Native, 126 Two or More Races)	Student occupational aspirations for low-prestige jobs	Hours worked (not employed, less than 20, 20–34, 35 hr or more)	2.17 ($p < .05$)	0.30
		For every one-unit increase in GPA		1.12 ($p < .05$)	0.04
		Friends planned to go to college		1.32 ($p < .05$)	0.11
		Discussed jobs with parents sometimes		1.26 ($p < .01$)	0.09
		Discussed jobs with parents often		1.43 ($p < .001$)	0.14
		Student occupational aspiration for medium-prestige jobs (HID vs. non-HID)		0.27 ($p < .001$)	–0.48
Shattuck et al. (2012) *exploratory*	500 (i.e., 500 ASD; 435 males, 65 females)	Conversational skills (lot of trouble)	PSE (any vocational/technical education)	4.7 ($p < .05$)	0.55
		Conversational skills (none)		16.3 ($p < .05$)	0.81
		Functional skills		1.1 ($p < .01$)	0.04
		Functional skills	PSE (any 2- or 4-year college)	1.1 ($p < .01$)	0.04

(continued)

Table 1. (continued)

Reference	Demographic information (*n*[a])	Predictor variable[b]	PSO variable[c]	Relationship[d] (Sig. level)	Effect size
		Functional skills	Employment (any paid employment)	1.1 ($p < .01$)	0.04
		Functional skills	Employment and PSE (involvement in both education and employment)	1.2 ($p < .001$)	0.07
Shogren et al. (2017) *a priori*	11,500 (e.g., 5,865 SLD, 690 ED, 460 ID, 460 SLI; 7,590 males, 3,910 females; 7,015White, 2,185 Black/AA, Hispanic 2,070, 115 Asian, 115 AI/AN, 12 Multiethnic or other)	Autonomy	Employment (paid employment in the last 4 years out of high school)	0.03 SRC ($p < .001$)	0.03
		Psychological empowerment		0.024 SRC ($p < .001$)	0.02
		Autonomy		0.020 SRC ($p < .001$)	0.02
		Psychological empowerment		0.22 SRC ($p < .001$)	0.22
		Psychological empowerment experienced	Employment (hours per week worked at a job in the last 4 years out of high school)	3.74 SRC ($p < .0001$)	3.74
		Psychological empowerment	Employment (received a promotion or pay raise in the last 4 years out of high school)	0.14 SRC ($p < .01$)	0.14
		Psychological empowerment	Employment (paid vacation/sick leave in the last 4 years out of high school)	0.13 SRC ($p < .05$)	0.13
		Psychological empowerment	Employment (health insurance in the last 4 years out of high school)	0.23 SRC ($p < .01$)	0.23
		Psychological empowerment	Employment stability (retirement benefits in the last 4 years out of high school)	0.18 SRC ($p < .01$)	0.18
		Autonomy	PSE (enrollment in PSE at 2- or 4-year college/ universities in the last 4 years out of high school)	0.20 SRC ($p < .05$)	0.20
		Psychological empowerment	PSE (enrollment in 4-year institution in the last 4 years out of high school)	0.29 SRC ($p < .05$)	0.29
		Autonomy	Independent Living (living on own, with a roommate or spouse, in college housing or dormitory, or military housing in the last 4 years out of high school)	0.34 SRC ($p < .05$)	0.34
		Self-realization		0.27 SRC ($p < .05$)	0.27
		Psychological empowerment		0.29 SRC ($p < .05$)	0.29
		Self-realization	Independent Living (quality of life [i.e., socialization number of days/week getting together with friends] in the last 4 years out of high school)	0.23 SRC ($p < .05$)	0.23
		Self-realization—having an understanding of one's strengths and support needs.	Employment status—paid employment in the last 2 years for students out of high school ages 21–24 years	–0.24 SRC ($p < .001$)	–0.24
		Self-realization—having an understanding of one's strengths and support needs.	Employment status—paid employment in the last 4 years for students out of high school ages 23–26 years	–0.18 SRC ($p < .001$)	–0.18
Simonsen & Neubert (2013) *exploratory*	388 (i.e., 388 ID; 206 males, 132 females; 165 White, 9 Latinx, 150 Black/AA, 9	Family expressed preference for paid work	Employment (CIE—working for pay within the community)	6.48 ($p < .001$)	0.60
	Asian, 1 AI/AN, 1 NH/OPI, 3 two or more races)	Paid work during high school (working for pay within the community)		4.53 ($p = .002$)	0.51
		Higher points earned on the community mobility scale		1.95 ($p = .028$)	0.25
		Family expressed preference for paid work	Employment (other community work; not CIE)	2.71 ($p = .001$)	0.32
		Self-management skills		1.85 ($p = .024$)	0.24
Wagner et al. (2015) *a priori with PSA*	480 (i.e., 480 SLD; 326 males, 154 females; 296 White, 80 Hispanic/Latino, 80 Black/AA)	Vocational education: earned 4 or more credits in occupationally specific courses (i.e., courses in business, trades) in a general education setting	Employment (worked 35 or more hours per week at a paid job that was not supported or sheltered employment)	2.93 ($p = .006$)	0.40

(continued)

Table 1. (continued)

Reference	Demographic information (*n*[a])	Predictor variable[b]	PSO variable[c]	Relationship[d] (Sig. level)	Effect size
Wehman et al. (2015) *exploratory*	2900 (i.e., 881 ID, 333 EBD, 973 Sensory, 713 Physical; 1,870 males, 1,030 females; 1,970 White, 310 Hispanic/Latino, 510 Black/AA, 110 Other)	High school characteristics: high school types (i.e., regular, other)	Employment (competitive employment—having any job where the youth was making at least minimum wage and employed in a setting where most of the employees did not have disabilities)	1.26 ($p < .05$)	0.09
		Computer skills (very good to not good at all)		2.25 ($p < .05$)	0.31
		Computer skills (pretty good-not good at all)		2.31 ($p < .05$)	0.38
		Computer skills (not very good-not good at all)		2.36 ($p < .05$)	0.33
		Employed in high school (yes/no)		1.41 ($p < .05$)	0.13
		Parent's expectations of a job (definitely will—definitely will not)		1.73 ($p < .0001$)	0.21
		Employment and training characteristics: Computer skills (very good-not very good)		0.95 ($p < .05$)	–0.02
Wei et al. (2016) *a priori with PSA*	660 (660 ASD; 564 males, 96 females; 67 Hispanic/Latino, 144 Black/AA)	Participation in transition planning	PSE (enrollment in a 2-year community college or 4-year university)	37.65 ($p < .05$)	0.91
		Participation in transition planning		1.95 ($p < .05$)	0.26
		Primary transition goal of college education, including attending a 2-year or 4-year college		41.80 ($p < .01$)	0.91
		Had a primary transition goal of college education, including attending a 2-year or 4-year college		4.43 ($p < .01$)	0.53
		Had a primary transition goal of college education, including attending a 2-year or 4-year college		37.62 ($p < .01$)	0.91
		Had a primary transition goal of college education, including attending a 2-year or 4-year		6.64 ($p < .01$)	0.64
Wei et al. (2015) *exploratory*	120 (120 ASD 104 males, 16 females; 101 White, 19 Other)	Functional skills	Employment and PSE	15.25 ($p = .026$)	0.80
Wei et al. (2017) *exploratory*	150 (i.e., 150 ASD; 97 STEM Major Males, 79 Non STEM Major Males, 53 STEM Major Females, 71 Non STEM Major Females; 85 White STEM Majors, 81 White Non STEM Major, 3	Advanced math classes in general education (i.e., trigonometry, precalculus, statistics and probability, calculus)	PSE (STEM major with enrollment in a 2-year or 4-year college majoring in computer science, programming, information technologies, engineering, math, etc.)	4.08 ($p < .05$)	0.51
	Hispanic/Latino STEM Major, 12 Hispanic/Latino Non STEM Major, 16 Non STEM Major Black/AA	Parents rated child's conversation ability; no or little trouble conversing		15.08 ($p < .001$)	0.80
Zhou et al. (2013) *exploratory*	200 (i.e., 200 VI; 120 males, 80 females)	Self-perceived computer competence	Employment (any paid job other than jobs around the house or school sponsored jobs)	0.88 SRC ($p = .001$)	0.88

Note. PSO = postsecondary outcome; Sig = significance; ID = intellectual disability; MD = multiple disabilities; PSE = postsecondary education; D/B = deaf/blindness; HS = high school; VI = visual impairment; SLD = specific learning disability; ED = emotional disability; OHI = other health impairment; MD = multiple disabilities; CTE = career and technical education; LD = learning disabilities; MR = mental retardation; AA = African American; HS = high school; IDD = intellectual and developmental disabilities; SLI = speech language impairment; HI = hearing impairment; OI = orthopedic impairment; ASD = autism spectrum disorder; TBI = traumatic brain injury; MD/DB = multiple disabilities/deaf-blindness; PSA = propensity score analyses; DHH = deaf or hard of hearing; IEP = individualized education program; GPA = grade point average; HID = high-incidence disabilities; AI/AN = American Indian/Alaska Native; SRC = standardized regression coefficient; NH/OPI = Native Hawaiian/Other Pacific Islander; CIE = competitive integrated employment; EBD = emotional/behavioral disabilities; STEM = science, technology, engineering, and mathematics.

[a]Sample (*n*) for some studies reflect weighted data for the population and not the actual full sample. [b]Predictor variable definitions: *Autonomy* = degree to which a person acts according to own preferences, interests, and abilities without external influence; *Conversational skills* = how well youth converse (i.e., a lot of trouble; not at all); *Functional skills* = telling time on analog clock, reading and understanding common signs, counting change, looking up telephone numbers, using the telephone, get to places outside the home, use public transportation, buy clothes at a store, arranging travel to go out of town; *Inclusion* = participating in regular classes at least 80% of the time; *Instruction in transition planning* = students who received education, specifically on transition planning skills designed to help them assess options and strategies for transitioning to adult life; *Participation in transition planning* = student who was familiar with his or her school program and provided some input into transition planning as a moderately active participant or taken a leadership role in the transition planning process, helping set the direction of discussion, goals, and programs or service needs identified; *Psychological empowerment* = a belief in the relationship between your actions and outcomes experienced; *Self-realization* = having an understanding of one's strengths and support needs. [c]Postschool outcome variables: HS = high school; PSE = postsecondary education; postsecondary CTE = postsecondary career technical education. [d]Relationship reflects odds ratio unless otherwise noted; SRC = standardized regression coefficient.

Table 2. Levels of Evidence for Predictors of Postschool Success.

Predictor	Outcome area(s)	Test, Mazzotti, et al. (2009)	Mazzotti et al. (2016)	Current review	Current level of evidence
Career Awareness	Education	1 *a priori* study	None	None	PP
	Employment	1 *a priori* study	1 *exploratory* study	None	PP
Career Technical Education (was Vocational Education)	Education	2 *a priori* studies	None	1 *a priori with PSM* study (Newman, Marschark, et al., 2016)	RBP
	Employment	4 *a priori* studies	1 *exploratory* study	2 *a priori with PSM* studies (Newman, Marschark, et al., 2016; Wagner et al., 2013); 1 *a priori* study (Rabren et al., 2014); 2 *a priori* studies (Daviso et al., 2016; Flexer et al. 2011); 1 *exploratory* study (Park & Bouck, 2018)	EBP
Community Experiences	Employment	1 *a priori* study; 1 *exploratory* study	None	None	PP
Exit Exam Requirements/ High-School Diploma Status	Employment	1 *a priori* study	1 *exploratory* study	1 *exploratory* study (Connors et al., 2014)	PP
Goal Setting	Education	None	1 *exploratory* study	1 *a priori with PSM* study (Wei et al., 2016)	RBP
Inclusion in General Education	Education	3 *a priori* studies	1 *a priori* study	2 *a priori* studies (Baer et al., 2011; Flexer et al., 2011); 1 *exploratory* study (Wei et al., 2017)	RBP
	Employment	3 *a priori* studies; 1 *exploratory* study	3 *exploratory* studies	1 *exploratory* study (Wehman et al., 2015)	RBP
	Independent Living	3 *a priori* studies	None	None	RBP
Interagency Collaboration	Education	1 *a priori* study; 1 *exploratory* study	None	None	PP
	Employment	1 *a priori* study	None	None	PP
Occupational Courses	Education	1 *a priori* study	None	None	PP
	Employment	1 *a priori* study	None	None	PP
Paid Employment/ Work Experience	Education	2 *a priori* studies	None	None	RBP
	Employment	4 *a priori* studies	4 *exploratory* studies	2 *a priori* studies (Daviso et al., 2016; Rabren et al., 2014); 3 *exploratory* studies (Cmar, 2015; Simonsen & Neubert, 2013; Wehman et al., 2015)	RBP
	Independent Living	1 *a priori* study	None	1 *exploratory* study (Connors et al., 2014)	PP
Parent Expectations	Education	None	1 *a priori* study; 3 *exploratory* studies	None	PP
	Employment	None	1 *a priori* study; 3 *exploratory* studies	1 *a priori* study (Rojewski et al., 2014); 3 *exploratory* studies (Cmar, 2015; Simonsen & Neubert, 2013; Wehman et al., 2015)	RBP
Parent Involvement	Employment	1 *a priori* study	None	None	PP
Program of Study	Education	None	None	1 *a priori with PSM* study (Newman, Marschark, et al., 2016)	RBP
	Employment	1 *a priori* study	None	1 *a priori* study (Rojewski et al., 2014)	RBP
Psychological Empowerment (new)	Education	None	None	1 *a priori* study (Shogren et al., 2017); 1 *exploratory* study (Petcu et al., 2017)	PP
	Employment	None	None	1 *a priori* study (Shogren et al., 2017)	PP
	Independent Living	None	None	1 *a priori* study (Shogren et al., 2017)	PP
Self-Care/Independent Living Skills	Education	1 *a priori* study	1 *exploratory* study	1 *exploratory* study (Wei et al., 2015)	PP
	Employment	1 *a priori* study; 1 *exploratory* study	1 *exploratory* study	3 *exploratory* studies (Shattuck et al., 2012; Simonsen & Neubert, 2013; Wei et al., 2015)	PP
	Independent Living	2 *a priori* studies; 1 *exploratory* study	None	None	RBP
Self-Determination/Self-Advocacy	Education	1 *a priori* study	None	1 *exploratory* study (Petcu et al., 2017); 1 *a priori* study (Shogren et al., 2017)	RBP
	Employment	1 *a priori* study	None	1 *a priori* study (Shogren et al., 2017)	RBP
	Independent Living	None	None	1 *a priori* study (Shogren et al., 2017)	PP
Self-Realization (new)	Employment	None	None	1 *a priori* study (Shogren et al., 2017)	PP
	Independent Living	None	None	1 *a priori* study (Shogren et al., 2017)	PP
Social Skills	Education	1 *a priori* study	None	2 *exploratory* studies (Shattuck et al., 2012; Wei et al., 2017)	PP
	Employment	1 *a priori* study; 1 *exploratory* study	3 *exploratory* studies	None	PP
Student Support	Education	1 *a priori* study	None	None	PP
	Employment	1 *a priori* study; 1 *exploratory* study	None	2 *a priori* studies (Daviso et al., 2016; Rojewski et al., 2014); 1 exploratory study (Cmar, 2015)	RBP
	Independent Living	1 *a priori* study	None	None	PP
Technology Skills (new)	Employment	None	None	2 *exploratory* studies (Wehman et al., 2015; Zhou et al., 2013)	PP
Transition Program	Education	2 *a priori* studies; 1 *exploratory* study	None	1 *a priori with PSM* study (Newman, Madaus, & Javitz, 2016); 1 *exploratory* study (Newman & Madaus, 2015)	RBP
	Employment	1 *a priori* study	None	1 *exploratory* study (Park & Bouck, 2018)	PP
Travel Skills	Education	None	2 *exploratory* studies	None	PP
Work Study	Employment	3 *a priori* studies	1 *exploratory* study	1 *a priori* study (Flexer et al., 2011)	RBP
Youth Autonomy/ Decision-Making	Education	None	2 *a priori* studies	1 *a priori with PSM* study (Wei et al., 2016); 1 *a priori* study (Shogren et al., 2017)	RBP
	Employment	None	1 *a priori* study	2 *a priori* studies (Rojewski et al., 2014; Shogren et al., 2017); 1 *exploratory* study (Petcu et al., 2017)	RBP
	Independent Living	None	None	1 *a priori* study (Shogren et al., 2017)	PP

Note. All studies included in this review and previous reviews by Test, Mazzotti, et al. (2009) and Mazzotti et al. (2016) are considered to be methodologically sound based on the quality indicators for correlational research (Gemici et al., 2012; IES, WWC, 2015; Thompson et al., 2005). PP = promising predictor; RBP = research-based predictor; EBP = evidence-based predictor; PSA = propensity score analysis.

Exit exam/high-school diploma status. Exit exam/high-school diploma status was identified as a promising predictor of postschool employment. There was no change in the level of evidence from previous reviews (i.e., Mazzotti et al., 2016; Test, Mazzotti, et al., 2009). The effect size was large. An example of exit exam/high-school diploma status from the contributing study included having graduated from high school or earning a graduation certificate (Connors et al., 2014).

Goal-setting. Goal-setting was identified as a research-based predictor of postschool education. The addition of one *a priori with PSA* study (Wei et al., 2016) changed the level of evidence from promising to research-based. The effect size was large. An example of goal-setting from the contributing study included having a primary transition goal of going to college in the transition plan (Wei et al., 2016).

Inclusion in general education. Inclusion in general education was identified as a research-based predictor of postschool education, employment, and independent living. Findings resulted in no change in level of evidence for this predictor. Effect sizes ranged from small to large. Examples of inclusion in general education included participation in regular education classes for at least 80% of the school day (Flexer et al., 2011); enrollment in regular high schools, rather than segregated high schools (Wehman et al., 2015); and participation in advanced math coursework (Wei et al., 2017).

Paid employment/work experience. Paid employment/work experience was identified as a promising predictor of postschool independent living and a research-based predictor of postschool education and employment. Findings resulted in no change in level of evidence. Effect sizes ranged from small to large. Examples of paid employment/work experience from contributing studies included working for pay in the community (Simonsen & Neubert, 2013) and being employed prior to exiting high school (Rabren et al., 2014).

Parent expectations. Parent expectations were identified as a research-based predictor of postschool employment. The addition of one *a priori* study (Rojewski et al., 2014) and three *exploratory* studies (Cmar, 2015; Simonsen & Neubert, 2013; Wehman et al., 2015) changed the level of evidence from promising to research-based for postschool employment. Effect sizes ranged from small to large. One example of parent expectations from contributing studies included parents expressing expectations for their child to gain paid work after high school (Cmar, 2015; Simonsen & Neubert, 2013; Wehman et al., 2015).

Program of study. Program of study was identified as a research-based predictor of postschool employment. The addition of one *a priori with PSA* study (Newman, Marschark, et al., 2016) changed the level of evidence from promising to research-based for postschool employment. Effect sizes ranged from small to large. An example of program of study from the contributing study included completing algebra coursework (Newman, Marschark, et al., 2016).

Self-care/independent living skills. Self-care/independent living skills were identified as a promising predictor of postschool education and employment. Findings resulted in no change in level of evidence. Effect sizes ranged from small to large. Examples of self-care/independent living skills from contributing studies included having strong functional living skills in high school (e.g., telling time, reading and understanding common signs; Shattuck et al., 2012; Wei et al., 2015) and higher points earned on a community mobility scale (Simonsen & Neubert, 2013).

Self-determination/self-advocacy. Self-determination/self-advocacy was identified as a research-based predictor of postschool education and employment and a promising predictor of independent living. The addition of one *exploratory* study (Petcu et al., 2017) and one *a priori* study (Shogren et al., 2017) changed the level of evidence from promising to research-based for postschool employment and education. Findings from the current review provided new evidence to support self-determination as a predictor of independent living (Shogren et al., 2017). Effect sizes ranged from small to large. An example of self-determination/self-advocacy from contributing studies included having innate psychological empowerment as a belief in the relationship between your actions and outcomes experienced (Shogren et al., 2017).

Social skills. Social skills were identified as a promising predictor of postschool education and employment. Findings resulted in no change in level of evidence. Effect sizes were large. Examples of social skills from contributing studies included how well youth conversed (Shattuck et al., 2012) and how parents rated their child's ability to converse (Wei et al., 2017).

Student support. Student support was identified as a research-based predictor of postschool employment. The addition of two *a priori* studies (Daviso et al., 2016; Rojewski et al., 2014) and one *exploratory* study (Cmar, 2015) changed the level of evidence from promising to research-based. Effect sizes ranged from small to medium. Examples of student support from contributing studies included students with disabilities (a) receiving career counseling, (b) obtaining help finding a job, (c) training for job skills, or (d) acquiring vocational education services at any time in high school (Cmar, 2015; Daviso et al., 2016; Rojewski et al., 2014).

Transition program. Transition program was identified as a research-based predictor of postschool education and employment. Findings resulted in no change in level of evidence with transition program remaining as a research-based predictor of postschool employment and education. Effect sizes ranged from medium to large. One example of transition program from contributing studies included students developing transition planning skills to help them assess options and strategies for transitioning to adult life (Newman & Madaus, 2015; Newman, Madaus, & Javitz, 2016).

Work study. Work study was identified as a research-based predictor of postschool employment. Findings resulted in no change in level of evidence; therefore, work study remains a research-based predictor of postschool employment. Effect sizes ranged from small to medium. An example of work study from contributing studies included providing students opportunities to participate in work study programs in high school (e.g., work skills instruction/experiences to develop work attitudes and behaviors; Flexer et al., 2011).

Youth autonomy/decision-making. Youth autonomy/decision-making was identified as a promising predictor of postschool independent living and a research-based predictor of postschool education and employment. Results of this review identified no additional evidence for youth autonomy/decision-making as a predictor of postschool education. The addition of two *a priori* studies (Rojewski et al., 2014; Shogren et al., 2017) and one *exploratory* study (Petcu et al., 2017) changed the level of evidence from promising to research-based for postschool employment. One *a priori* study (Shogren et al., 2017) provided evidence that youth autonomy/decision-making is a predictor of postschool independent living. Effects ranged from small to large. Examples of this predictor from contributing studies included the degree to which a person acts according to their own preferences, interests, and abilities (Shogren et al., 2017) and taking a leadership role in the transition planning process (Wei et al., 2016).

Evidence for New Predictors

Three new predictors were identified as promising predictors of postschool success. Psychological empowerment (i.e., belief in the relationship between actions and outcomes), a component of self-determination, was identified as a promising predictor of postschool education, employment, and independent living (Petcu et al., 2017; Shogren et al., 2017). Effect sizes ranged from small to large. In addition, self-realization (i.e., having an understanding of one's strengths and support needs), another component of self-determination, was a promising predictor of postschool employment and independent living (Shogren et al., 2017). Effect sizes were medium. Finally, technology skills (i.e., computer competence, computer skills) were identified as a promising predictor of postschool employment. Effect sizes ranged from medium to large.

Statistically Significant Negative Correlational Findings

This systematic review also examined significant negative relationships that may indicate contradictory or potentially confirming evidence for predictor categories. Of the 22 studies, seven studies (i.e., Daviso et al., 2016; Flexer et al., 2011; Myers et al., 2015; Newman, Marschark, et al., 2016; Park & Bouck, 2018; Shogren et al., 2017; Wehman et al., 2015) reported significant negative relationships between in-school predictors and one or more postschool outcome areas. Table 1 includes results of significant negative correlational findings. Related to CTE and work study, Newman, Marschark, et al. (2016) reported one significant negative correlation, which indicated neither completing a greater number of CTE courses nor being a CTE concentrator predicted positive postsecondary education enrollment in a 4-year college or university for youth who were deaf or hard of hearing. Daviso et al. (2016) found significant negative correlations related to CTE and work study and found females with specific learning disabilities and other health impairments were less likely than males with disabilities to gain competitive integrated employment after high school. In addition, Black youth with specific learning disabilities were less likely than other youth with disabilities to gain competitive integrated employment after high school. Similar to Daviso et al. (2016), Flexer et al. (2011) reported significant negative correlations related to CTE and work study and found females with specific learning disabilities, youth with intellectual and developmental disabilities, and Black youth with disabilities were less likely to gain competitive integrated employment.

Related to inclusion in general education and paid employment/work experience, Flexer et al. (2011) investigated inclusion in general education as a predictor of postschool education and found one significant negative correlation suggesting youth with intellectual and developmental disabilities were less likely than other youth to enroll full time in 2-year and 4-year colleges. Furthermore, Park and Bouck (2018) found three significant negative correlations related to sheltered employment and vocational instruction and found youth with mild/moderate intellectual disability who had sheltered employment as part of their transition plan were less likely to experience paid employment postschool.

Other negative findings were related to the interagency collaboration, self-determination/self-advocacy, and technology skills predictors. Myers et al. (2015) reported significant negative correlations related to high-school variables

that increased risk for community and social participation of adults with autism. Youth with autism who did not have case managers in high school were at increased risk of poor community participation and increased risk of no social participation. Shogren et al. (2017) found two significant negative correlations that indicated youth with disabilities who had self-realization skills in high school were less likely to experience positive postschool employment outcomes. Wehman et al. (2015) found one significant negative correlation that indicated students who had poor computer skills were less likely to gain competitive integrated employment post-school.

Discussion

The purpose of this systematic literature review was to (a) examine the secondary transition correlational literature published since Test, Mazzotti, et al. (2009), (b) identify additional evidence to support existing predictors of postschool success, and (c) identify new predictors of postschool success for youth with disabilities. We identified additional evidence to support 14 existing predictors identified by Test, Mazzotti, et al., 2009 and Mazzotti et al. (2016). In addition, we identified three new predictors of postschool success, bringing the total number of in-school predictors to 23.

Limitations

Several limitations should be considered. First, we conducted this review using pre-defined methodological standards developed by the NTACT (NTACT, 2015, 2017; Test, Mazzotti, et al., 2009) based on Thompson et al. (2005), Gemici et al. (2012), and IES, WWC (2015) suggestions. These standards may not be as rigorous as those used in other fields (e.g., health care; Melnyk et al., 2017).

Second, correlational research does not provide causal evidence that the identified predictors will lead to positive postschool outcomes for youth with disabilities. However, under the Every Student Succeeds Act (2015), high-quality correlational research falls at the Tier 3 level for promising evidence. Caution should be used when considering the predictors as interventions that promote positive postschool outcomes for youth with disabilities, as the IES' WWC does not consider Tier 3 as meeting evidence of effectiveness (IES, WWC, 2020).

Third, it should be noted that only significant positive findings from studies contributed to the levels of evidence for the predictors in this review. Significant negative findings from this review did not add to the evidence for promising, research-based, or evidence-based predictors. In addition, this review only included peer-reviewed, methodologically sound correlational studies that met the quality indicators for correlational research (Thompson et al., 2005).

Implications for Future Research

Future research should consider using more rigorous research designs when conducting correlational research (e.g., PSA). Half of the studies identified in this review were *exploratory*, with no planned hypothesis before analysis. The other half of the studies were *a priori* with only four of those studies using more advanced analytical procedures (i.e., PSA; Newman, Madaus, & Javitz, 2016; Newman, Marschark, et al., 2016; Wagner et al., 2015; Wei et al., 2016) to examine predictors of postschool outcomes for youth with disabilities. Quasi-experimental correlational studies using methods such as PSA have shown positive impacts on employment and education for youth with disabilities after high school. PSA is considered a quasi-experimental design, and the propensity score "is the probability that an observation would appear in the intervention group given a set of measured characteristics" (WWC, 2020, p. 30). Using rigorous methods for correlational research with planned hypotheses that follow the quality indicators will likely increase the levels of evidence for the existing predictors and potentially identify new evidence-based predictors of postschool success.

To increase generalizability among specific disability groups, future correlational research should include large sample sizes and focus on subpopulations of youth with disabilities to validate and extend current findings. Prior reviews suggested that future research disaggregate results by disability. Our findings indicated that 11 of the 22 studies focused on one specific disability group. This may indicate that researchers are responding to this advice. It is important to caution that we cannot suggest that specific predictors enhance postschool outcomes for specific disability groups due to the number of participants included within each study, variability in the individual characteristics of participants within each disability category (e.g., autism spectrum disorder, intellectual disability), and variables examined at different points in time. Consideration should be given to conducting meta-analyses, similar to Haber et al. (2016), which may provide evidence of the in-school experiences that indicate the strongest relationships to postschool outcomes for youth and can reflect "variability in these relationships by outcome, research design, and population" (Haber et al., 2016, p. 3).

Future research should consider disaggregating data beyond disability to other demographic characteristics (e.g., race/ethnicity, gender, socioeconomic status) to ensure researchers and educators understand what works for whom. Results of this review suggested specific predictors may be impacted, based on gender, disability, and race/ethnicity. For example, Daviso et al. (2016) found

significant negative correlations between participation in CTE and decreased postschool employment outcomes for females with specific learning disabilities and other health impairments and Black youth with specific learning disabilities. Similarly, Flexer et al. (2011) found statistically significant negative correlations between participation in CTE and postschool employment for youth with intellectual and developmental disabilities and Black youth. If the field really wants to understand factors that influence transition program development, improvement, and evaluation, and as Haber et al. (2016) put it, learn "what works, when, for whom, and with whom?" (p.1.), future research will need to begin asking those critical questions and ensure plans for analysis of data are designed to answer those specific questions.

Future research should focus on further application of the 23 predictors. In 2015, Rowe et al. operationalized the original 16 predictors from Test, Mazzotti, et al. (2009) through a Delphi procedure, which resulted in the *Predictor Implementation School and District Self-Assessment* and two evolutions of this resource (NTACT, 2019). It is incumbent upon researchers to assist the field in understanding precisely what is reflected in the predictor categories identified since the Test, Mazzotti, et al. study to extend the research findings for practice (i.e., goal-setting, parent expectations, psychological empowerment, self-realization, technology skills, travel skills, youth autonomy/decision-making). It will also be necessary for researchers to assist the field in the application of these 23 predictors to support transition program improvement.

Implications for Practice

The predictors can guide program creation, improvement, and evaluation (Rowe et al., 2015; Test, Mazzotti, et al., 2009). Many state and local education agencies examine data (e.g., postschool outcomes data, graduation data) for program improvement as part of their continuous improvement systems. As Rowe et al. (2015) emphasized, understanding predictors of postschool success can assist schools and districts in identifying whether or not they are implementing empirically supported practices to influence change in needed areas. In this review, parent expectations for paid work in the community were a predictor of postschool success. Knowledge of this predictor may provide school and community programs an opportunity to deeply examine what strategies and factors are implemented to develop and encourage high expectations by families.

By utilizing the predictors of postschool success, practitioners have guidance to implement instruction and support factors in their classrooms and the community to improve postschool outcomes for youth with disabilities. Using the predictors will allow schools to be strategic and ensure a good return on their investments (e.g., time, effort, financial resources), providing transition services to youth that have the best chance of improving students' postschool outcomes. It is also important that educators and policy makers take into account the contextual factors that influence outcomes for youth, families, and communities related to poverty and culture (Trainor et al., 2020). While there is little evidence in the correlational literature that provides guidance on transition programming for these diverse groups, it is imperative that factors such as poverty and culture are taken into consideration related to both policy and practice.

Policies should be directed at linking students and their families with services and supports (e.g., predictors) in school that foster student success post school. The predictors can guide administrators or governing bodies at both the state and local levels to implement procedures and policies that are based in research and are more likely to lead to positive postschool success. Policymakers must keep in mind the intended goal of IDEIA, which is to prepare students for "further education, employment, and independent living" (IDEIA, 2004). State and local education agencies can empower schools by providing clear/consistent definitions, regulations, guidance, and communication regarding the provision of services and supports (e.g., predictors).

It will be critical to help practitioners operationalize the connection between the predictors of postschool success and evidence-based interventions to foster evidence-based practice in secondary special education. To better prepare those working with transition-age youth in schools, faculty and those responsible for pre-service and in-service personnel development should ensure the predictors of postschool success are a focus of knowledge development (Simonsen et al., 2018). The focus should be on what the predictors are and how to implement them in authentic contexts. Consideration of contexts must include the relevance and application of predictors in different communities, school environments, and with different populations of students with regard to such variables as disability, race/ethnicity, and gender. In the current review, the level of evidence for self-determination and goal-setting as predictors increased, and we identified new evidence for psychological empowerment and self-realization. These findings provide faculty and professional development providers support for their students and personnel to understand this family of predictors of postschool success as correlates of improved education, employment, and independent living outcomes.

Conclusion

The transition to adulthood is a lifelong journey that requires educators, adult service providers, and policy makers to continue to work together to ensure a smooth transition for all youth. Likewise, the field of secondary special education and transition continues to mature by pinpointing and

promoting research-validated practices and predictors to prepare students with disabilities for adult life. The results of this systematic literature review contribute to the growth of the field by identifying additional evidence for existing predictors ($n = 14$) and identifying new ($n = 3$) predictors of postschool success correlated with improved outcomes for secondary students with disabilities. Researchers and practitioners may consider the findings of this review and recommendations for research and practice as we move forward as a field.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This document was developed by The National Technical Assistance Center on Transition (NTACT), Charlotte, NC, funded by Cooperative Agreement Number H326E140004 with the U.S. Department of Education, Office of Special Education Programs and the Rehabilitation Services Administration. Opinions expressed herein do not necessarily reflect the position or policy of the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Department of Education.

ORCID iDs

Valerie L. Mazzotti https://orcid.org/0000-0003-2616-8859

Stephen Kwiatek https://orcid.org/0000-0001-5310-790X

James Sinclair https://orcid.org/0000-0003-2019-6103

Supplemental Material

Supplemental material for this article is available online at http://journals.sagepub.com/doi/suppl/10.1177/2165143420959793

References

*References marked with an asterisk were used to identify predictors of post-school success.

*Baer, R. M., Daviso, A. W., III, Flexer, R. W., McMahan Queen, R., & Meindl, R. S. (2011). (2011). Students with intellectual disabilities: Predictors of transition outcomes. *Career Development for Exceptional Individuals*, *34*(3), 132–141. https://doi.org/10.1177/0885728811399090

*Cmar, J. L. (2015). Orientation and mobility skills and outcome expectations as predictors of employment for young adults with visual impairments. *Journal of Visual Impairment & Blindness*, *109*(2), 95–106. https://doi.org/10.1177/0145482X1510900205

*Connors, E., Curtis, A., Wall Emerson, R., & Dormitorio, B. (2014). Longitudinal analysis of factors associated with successful outcomes for transition-age youths with visual impairments. *Journal of Visual Impairment & Blindness*, *108*(2), 95–106. https://doi.org/10.1177/0145482X1410800202

*Daviso, A. W., Baer, R. M., Flexer, R. W., & Meindl, R. (2016). Career and technical education, work study, & school supervised work: How do they impact employment for students with disabilities? *Journal of Applied Rehabilitation Counseling*, *47*(2), 10–19. https://doi.org/10.1891/0047-2220.47.2.10

DeCoster, J., & Iselin, A. R. (2005). *Comparing two dependent correlations measured on the same subjects* [Computer program]. Stat-Help.com. http://www.stat-help.com/spreadsheets.html

Every Student Succeeds Act of 2015, 20 U.S.C. § 6301 et seq. https://www.govinfo.gov/content/pkg/BILLS-114s1177enr/pdf/BILLS-114s1177enr.pdf

*Flexer, R. W., Daviso, A. W., Baer, R. M., McMahan Queen, R., & Meindl, R. S. (2011). An epidemiological model of transition and postschool outcomes. *Career Development for Exceptional Individuals*, *34*(2), 83–94. https://doi.org/10.1177/0885728810387922

Gemici, S., Rojewski, J. W., & Lee, I. H. (2012). Use of propensity score matching for training research with observational data. *International Journal of Training Research*, *10*(3), 219–232. https://doi.org/10.5172/ijtr.2012.10.3.219

Gilson, C. B., Carter, E. W., & Biggs, E. E. (2017). Systematic review of instructional methods to teach employment skills to secondary students with intellectual and developmental disabilities. *Research and Practice for Persons With Severe Disabilities*, *42*(2), 89–107. https://doi.org/10.1177/1540796917698831

Haber, M. G., Mazzotti, V. L., Mustian, A. L., Rowe, D. A., Bartholomew, A. L., Test, D. W., & Fowler, C. H. (2016). What works, when, for whom, & with whom: A meta-analytic review of predictors of postsecondary success for students with disabilities. *Review of Educational Research*, *86*(1), 123–162. https://doi.org/10.3102/0034654315583135

Houtenville, A., & Boege, S. (2019). *Annual report on people with disabilities in America: 2018*. Institute on Disability, University of New Hampshire.

Individuals With Disabilities Education Improvement Act of 2004, 20 U.S.C. § 1400 et seq. https://www.congress.gov/bill/108th-congress/house-bill/1350.

Institute for Education Sciences, What Works Clearinghouse. (2015, March). *Designing quasi-experiments: Meeting What Works Clearinghouse Standards without random assignment*. https://ies.ed.gov/ncee/wwc/Multimedia/23

Institute for Education Sciences, What Works Clearinghouse. (2020). *Using the WWC to find ESSA tiers of evidence*. https://ies.ed.gov/ncee/wwc/essa

Lipsey, M. W., & Wilson, D. B. (2001). *Practical meta-analysis*. SAGE.

Mazzotti, V. L., Rowe, D. A., Sinclair, J., Poppen, M., Woods, W. E., & Shearer, M. L. (2016). Predictors of post-school success: A systematic review of NLTS2 secondary analyses. *Career Development and Transition for Exceptional Individuals*, *39*(4), 196–215. https://doi.org/10.1177/2165143415588047

Melnyk, B. M., Gallagher-Ford, L., & Fineout-Overholt, E. (2017). *Implementing evidence-based practice competencies*

in healthcare: A practical guide for improving quality, safety, & outcomes. Sigma Theta Tau International.

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G., & The PRISMA Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Medicine*, *6*(7), Article e1000097. https://doi.org/10.1371/journal.pmed1000097

*Myers, E., Davis, B. E., Stobbe, G., & Bjornson, K. (2015). Community and social participation among individuals with autism spectrum disorder transitioning to adulthood. *Journal of Autism and Developmental Disorders*, *45*(8), 2373–2381. https://doi.org/10.1007/s10803-015-2403-z

National Center for Education Statistics. (2019). *Students with disabilities*. https://nces.ed.gov/fastfacts/display.asp?id=60

National Technical Assistance Center on Transition. (2015). *NTACT criteria for levels of evidence*. https://bit.ly/3gyA2Pq

National Technical Assistance Center on Transition. (2017). *Quality indicator checklist: Correlational studies*. https://bit.ly/3b8gAbd

National Technical Assistance Center on Transition. (2019). *Predictor implementation school/district self-assessment*. https://bit.ly/31ABaxN

*Newman, L. A., & Madaus, J. W. (2015). An analysis of factors related to receipt of accommodations and services by postsecondary students with disabilities. *Remedial and Special Education*, *36*(4), 208–219. https://doi.org/10.1177/0741932515572912

*Newman, L. A., Madaus, J. W., & Javitz, H. S. (2016). Effect of transition planning activities on postsecondary support receipt by students with disabilities. *Exceptional Children*, *82*(4), 497–514. https://doi.org/10.1177/0014402915615884

*Newman, L. A., Marschark, M., Shaver, D. M., & Javitz, H. (2016). Course-taking effect on postsecondary enrollment of deaf and hard of hearing students. *Exceptionality*, *25*(3), 170–185. https://doi.org/10.1080/09362835.2016.1196445

Newman, L. A, Wagner, M., Knokey, A., Marder, C., Nagle, K., Shaver, D., Wei, X., Cameto, R., Contreras, E., Ferguson, K., Greenes, S., & Schwarting, M. (2011). *The post-high school outcomes of young adults with disabilities up to 8 years after high school. A report from the National Longitudinal Transition Study-2 (NLTS2)* (NCSER 2011—3005). U. S. Department of Education. https://files.eric.ed.gov/fulltext/ED524044.pdf

Nieminen, P., Lehtiniemi, H., Vähäkangas, K., Huusko, A., & Rautio, A. (2013). Standardized regression coefficient as an effect size index in summarizing findings in epidemiological studies. *Epidemiology Biostatistics and Public Health*, *10*(4), 1–15. https://doi.org/10.2427/8854

*Park, J., & Bouck, E. (2018). In-school service predictors of employment for individuals with intellectual disability. *Research in Developmental Disabilities*, *77*(June2018), 68–75. https://doi.org/10.1016/j.ridd.2018.03.014

*Petcu, S. D., Van Horn, M. L., & Shogren, K. A. (2017). Self-determination and the enrollment in and completion of post-secondary education for students with disabilities. *Career Development and Transition for Exceptional Individuals*, *40*(4), 225–234. http://dx.doi.org/10.1177/2165143416670135

*Rabren, K., Carpenter, J., Dunn, C., & Carney, J. S. (2014). Actions against poverty: The impact of career technical education. *Career Development and Transition for Exceptional Individuals*, *37*(1), 29–39. http://dx.doi.org/10.1177/2165143414522091

*Rojewski, J. W., Lee, I. H., & Gregg, N. (2014). Intermediate work outcomes for adolescents with high-incidence disabilities. *Career Development and Transition for Exceptional Individuals*, *37*(2), 106–118. https://doi.org/10.1177/2165143412473352

Rowe, D. A., Alverson, C. Y., Unruh, D. K., Fowler, C. H., Kellems, R., & Test, D. W. (2015). A Delphi study to operationalize evidence-based predictors in secondary transition. *Career Development and Transition for Exceptional Individuals*, *38*(2), 113–126. https://doi.org/10.1177/2165143414526429

Rowe, D. A., Mazzotti, V. L., Fowler, C. H., Test, D. W., Mitchell, V. J., Clark, K. A., Holzberg, D., Owens, T. L., Rusher, D., Seaman-Tullis, R. L., Gushanas, C. M., Castle, H., Chang, W., Voggt, A., Kwiatek, S., & Dean, J. C. (in press). Updating the secondary transition research base: Evidence- and research-based practices in functional skills. *Career Development and Transition for Exceptional Individuals*.

Sanford, C., Newman, L., Wagner, M., Cameto, R., Knokey, A., & Shaver, D. (2011). *The post-high school outcomes of young adults with disabilities up to 6 years after high school. Key findings from the National Longitudinal Transition Study-2 (NLTS2)* (NCSER 2011—3004). U. S. Department of Education. https://files.eric.ed.gov/fulltext/ED523539.pdf

*Shattuck, P. T., Narendorf, S. C., Cooper, B., Sterzing, P. R., Wagner, M., & Lounds, J. (2012). Postsecondary education and employment among youth with an autism spectrum disorder. *Pediatrics*, *129*(6), 1042–1049. https://doi.org/10.1542/peds.2011-2864

*Shogren, K. A., Lee, J., & Panko, P. (2017). An examination of the relationship between postschool outcomes and autonomy, psychological empowerment, and self-realization. *The Journal of Special Education*, *51*(2), 115–124. https://doi.org/10.1177/0022466916683171

*Simonsen, M. L., & Neubert, D. A. (2013). Transitioning youth with intellectual and other developmental disabilities: Predicting community employment outcomes. *Career Development and Transition for Exceptional Individuals*, *36*(3), 188–198. https://doi.org/10.1177/2165143412469399

Simonsen, M., Novak, J., & Mazzotti, V. L. (2018). Status of credentialing structures related to secondary transition: A state-level policy analysis. *Career Development and Transition for Exceptional Individuals*, *41*(1), 27–38. https://doi.org/10.1177/2165143417742109

Test, D. W., Fowler, C. H., Richter, S., White, J. A., Mazzotti, V. L., Walker, A. R., Kohler, P., & Kortering, L. (2009). Evidence-based practices in secondary transition. *Career Development for Exceptional Individuals*, *32*(2), 115–128. https://doi.org/10.1177/0885728809336859

Test, D. W., Mazzotti, V. L., Mustian, A. L., Fowler, C. H., Kortering, L., & Kohler, P. (2009). Evidence-based secondary transition predictors for improving postschool outcomes for students with disabilities. *Career Development*

for Exceptional Individuals, *32*(3), 160–181. https://doi.org/10.1177/0885728809346960

Thompson, B., Diamond, K. E., McWilliam, R., Snyder, P., & Snyder, S. W. (2005). Evaluating the quality of evidence from correlational research for evidence-based practice. *Exceptional Children*, *71*(2), 181–194. https://doi.org/10.1177/001440290507100204

Trainor, A. A., Carter, E. W., Karpur, A., Martin, J. E., Mazzotti, V. L., Morningstar, M. E., Newman, L., & Rojewski, J. W. (2020). A framework for research in transition: Identifying important areas and intersections for future study. *Career Development and Transition for Exceptional Individuals*, *43*(1), 5–17. https://doi.org/10.1177/2165143419864551

U.S. Bureau of Labor Statistics. (2018). *Person with a disability: Labor force characteristics summary*. https://www.bls.gov/news.release/disabl.nr0.htm

U.S. Census Bureau. (2016). *Educational attainment in the United States: Population characteristics*. https://www.census.gov/content/dam/Census/library/publications/2016/demo/p20-578.pdf

*Wagner, M. M., Newman, L. A., & Javitz, H. S. (2015). The benefits of high school career and technical education (CTE) for youth with learning disabilities. *Journal of Learning Disabilities*, *49*(6), 658–670. https://doi.org/10.1177/0022219415574774

*Wehman, P., Sima, A. P., Ketchum, J., West, M. D., Chan, F., & Lueking, R. (2015). Predictors of successful transition from school to employment for youth with disabilities. *Journal of Occupational Rehabilitation*, *25*(2), 323–334. https://doi.org/10.1007/s10926-014-9541-6

*Wei, X., Wagner, M., Hudson, L., Yu, J. W., & Javitz, H. (2016). The effect of transition planning participation and goal-setting on college enrollment among youth with autism spectrum disorders. *Remedial and Special Education*, *37*(1), 3–14. https://doi.org/10.1177/0741932515581495

*Wei, X., Wagner, M., Hudson, L., Yu, J. W., & Shattuck, P. (2015). Transition to adulthood: Employment, education, and disengagement in individuals with autism spectrum disorders. *Emerging Adulthood*, *3*(1), 37–45. https://doi.org/10.1177/2167696814534417

*Wei, X., Yu, J. W., Shattuck, P., & Blackorby, J. (2017). High school math and science preparation and postsecondary stem participation for students with an autism spectrum disorder. *Focus on Autism and Other Developmental Disabilities*, *32*(2), 83–92. https://doi.org/10.1177/1088357615588489

What Works Clearinghouse. (2020). *What Works Clearinghouse: Standards handbook, version 4.1*. https://ies.ed.gov/ncee/wwc/Docs/referenceresources/WWC-Standards-Handbook-v4-1-508.pdf

*Zhou, L., Smith, D. W., Parker, A. T., & Griffin-Shirley, N. (2013). The relationship between perceived computer competence and the employment outcomes of transition-aged youths with visual impairments. *Journal of Visual Impairment & Blindness*, *107*(1), 43–53. https://doi.org/10.1177/0145482X1310700104