

Participation of Students With Intellectual Disability in Community-Based Work Experiences: A Scoping Review

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Abstract

The purpose of this scoping review was to examine the literature about the participation of students with intellectual disability in community-based work experiences (CBWEs). We analyzed 54 original research articles written in English, conducted in the United States, and published between 1975 and 2020 in peer-reviewed journals. We identified study characteristics (e.g., research design, participants, data sources, and CBWEs) and the focus of each study. Studies focused on five areas: descriptions of student participation in CBWEs, correlates of student participation in CBWEs, relations between student participation in CBWEs and post-CBWEs outcomes, descriptions of transition programs that include CBWEs, and descriptions of stakeholders' perceptions of student participation in CBWEs. Implications for how teachers plan CBWEs and how researchers can address gaps in the literature are discussed.

Keywords

intellectual disability, community-based work experiences, work experiences, and transition

According to the Individuals with Disabilities Education Act (IDEA, 2004), one of the purposes of special education is to prepare students with disabilities for post-school life. IDEA (2004) requires schools to provide transition services such as “instruction, related services, community experiences, the development of employment and other post-school living objectives, and, when appropriate, acquisition of daily living skills and functional vocational evaluation” (Sec. 602[34C]). To comply with Indicator 13 requirements, all students age 16 or older are required to have transition services that will prepare them for post-school life outlined in their Individualized Education Program (IEP). The transition services students receive should align with their preferences, interests, needs, strengths, and post-school goals. For example, students with disabilities who plan to pursue employment after graduation may participate in community-based work experiences (CBWEs). The Workforce Innovation and Opportunity Act (WIOA, 2014) highlights the importance of student participation in CBWEs by requiring vocational rehabilitation providers to provide work-based learning experiences to students with disabilities. CBWEs also align with Employment First initiatives that emphasize the inclusion of individuals with disabilities in community-based employment.

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During CBWEs, students learn work skills, increase their career awareness, and identify their interests and preferences in real work settings (Hanley-Maxwell & Izzo, 2012; Inge et al., 2017). There are generally eight types of CBWEs that may be available to students with disabilities: career exploration, job shadowing, work sampling, service learning, internships, apprenticeships, stipend jobs, and paid employment (Luecking, 2020; Rowe et al., 2015). Students should be matched to these experiences based on their age, individual needs, and goals (McDonnell & Hardman, 2010). Younger students may benefit from short-term exploratory experiences such as career exploration and job shadowing (Luecking, 2020). Although these experiences may only last a few hours to a few days, students learn about the components and demands of jobs available in their community. As students increase their career awareness, they may participate in more intensive experiences, such as service learning or job sampling, that last for several weeks to several months. During these intensive experiences, students learn general and job-specific employment skills (Hanley-Maxwell & Izzo, 2012).

Several systematic literature reviews have identified a relation between CBWEs and positive post-school outcomes for students with disabilities. One of the first reviews conducted by Kohler (1993) examined experimental, theory-based, and opinion-based literature published between 1985 and 1991 about transition practices. The only CBWE addressed in the literature was paid work. Although three studies found that paid work was positively correlated to post-school employment, the majority of studies about paid work ($n = 6$) were opinion or theory based. More recent reviews of the literature have examined correlational research investigating the relation between student participation in CBWEs and students' post-school outcomes (Mazzotti et al., 2016, 2021; Test et al., 2009). According to these reviews, students with disabilities who participate in CBWEs are more likely to live independently, attend post-secondary education, and be employed after graduation than students who do not participate in CBWEs. These researchers defined CBWEs broadly to include a variety of experiences such as job shadowing, work sampling, and paid work; however, the majority of the correlational studies included in the reviews focused only on paid work.

Although previous reviews suggest that students who participate in CBWEs have better post-school outcomes than students who do not participate in CBWEs (see Mazzotti et al., 2021), there are a few gaps in the literature that need to be addressed to gain a better understanding of student participation in CBWEs. First, previous reviews grouped all types of CBWEs (e.g., paid work, job shadowing) into one general work experience category; yet, each type of CBWE has different characteristics (e.g., paid vs. unpaid, supports provided, duration; Luecking, 2020). To gain a better understanding of what is known from the literature about student participation in each type of CBWE, a review that differentiates between each type of CBWE is needed. Second, previous reviews focused on students with all types of disabilities. A review focused on students with intellectual disability (ID) is needed because students with ID often have the poorest post-school employment outcomes (Newman et al., 2011). Understanding the participation of students with ID in CBWEs may provide the field with important insights into how students with ID are prepared for post-school life. Third, previous reviews focused primarily on correlational research describing the relation between student participation in CBWEs and post-school employment. A scoping review of the literature that includes all types of empirical research (e.g., correlational, descriptive, and qualitative) may provide a broader understanding of the literature on CBWEs. The purpose of this scoping review therefore was to describe the existing empirical literature about the participation of students with ID in CBWEs.

Method

Scoping reviews are one method to “map rapidly the key concepts underpinning a research area and the main sources and types of evidence available” (Arksey & O’Malley, 2005, p. 21). We chose to conduct a scoping review (vs. systematic review) because our research question was broad and aimed to describe the full range of empirical literature about the participation of students with ID in CBWEs. To describe the main sources and types of evidence available about student participation in CBWEs, we identified the following characteristics of each study: (a) research design, (b) data source, (c) type of CBWE investigated, (d) participants, and (e) number of students and disability type. The focus of each study was also identified to map key concepts in the literature and identify gaps.

Inclusion Criteria

Articles were included if they met all of the following criteria: (a) an original research study that focused on student participation in CBWEs, (b) participants were transition-age and received special education services or participants reported data about transition aged youth who received special education services, (c) at least 50% of the data represented students with ID, or if less than 50% of the data represented students with ID, study findings were disaggregated by disability type, and (d) written in English, conducted in the United States, and published between 1975 and 2020 in peer-reviewed journals. Articles were limited to those in peer-reviewed journals because we did not evaluate articles for methodological rigor and wanted to ensure articles met at least one measure of quality. We included studies in which the majority of data represented students with ID (i.e., at least 50% of the data) because the purpose of this review was to gain a broad understanding of the literature about the participation of students with ID in CBWEs (Arksey & O'Malley, 2005). Studies were limited to those between 1975 and 2020 because students with disabilities were not legally mandated to receive a free and appropriate public education until the passage of the Education for All Handicapped Children Act (PL 94-142) in 1975. Articles were excluded if (a) they were not an original research study, (b) they did not focus on student participation in a CBWE, (c) student participants were below the age of 14 or over the age of 21, (d) student participants only received support from vocational rehabilitation, or (e) less than 50% of the data represented students with ID or the data were not disaggregated by disability type.

Identifying and Selecting Studies

Four search procedures were used to identify potential studies: (a) key word search, (b) forward search, (c) ancestral search, and (d) hand search. First, a combination of 54 key words was entered into eight electronic databases: Academic Search Complete, Academic Search Ultimate, Education Full Text, ERIC, Professional Development Collection, PsycArticles, PsycINFO, and ABI/Inform. The search included three strings of key words describing (a) ID ("mental retardation" OR "severe disab*" OR "down* syndrome," etc.), (b) transition age ("transition" OR "middle school" OR "high school," etc.), and (c) CBWEs ("work based learning" OR "work experience" OR "job explor*," etc.). This initial search resulted in 517 unique articles.

Articles went through two rounds of screening to identify those that met inclusion criteria. During the first round, the first author read the abstracts and titles of all 517 articles and a graduate student independently read 22.6% ($n = 117$). Reliability was calculated by taking the number of agreements divided by the total number of agreements plus disagreements, multiplied by 100%. Results indicated high levels of reliability across all criteria: original research (95.7%), written in English (100%), conducted in the United States (98.3%), published between 1975 and 2020 (100%), and at least 50% of the data represented individuals with ID or data were disaggregated by type of disability (98.3%). All disagreements were resolved through discussion and consensus. As a result, 167 articles were identified.

During the second round of screening, the first author conducted a full-text screening to identify articles that focused on student participation in CBWEs and students who were transition age and received special education services. To determine whether articles focused on student participation in CBWEs, the first author reviewed the literature about CBWEs (e.g., Luecking, 2020) and created definitions for each type of CBWE. The second author reviewed the definitions and adjustments were made until both researchers agreed upon each definition. A graduate student independently screened 25.8% ($n = 43$) of the articles for reliability. Reliability for each criterion was calculated using the same method previously described and ranged from 88.4% to 95.3%. The first author and graduate student discussed all disagreements. The main source of disagreement was due to the limited definitions authors provided about the types of CBWEs investigated. As a result, minor changes were made to how CBWEs were defined and some data were recoded. After the second round of screening, 29 articles met all inclusion criteria.

Finally, the first author conducted an ancestral search and forward search for the 29 articles, and a hand search of all articles published between 1975 and 2020 in *Career Development and Transition for*

Exceptional Individuals (CDTEI) and *Journal of Vocational Rehabilitation (JVR)*. An additional 186 articles were identified (forward search, $n = 70$; backward search, $n = 86$; *CDTEI*, $n = 17$; *JVR*, $n = 13$). The first author read all of the articles and a graduate student independently read 23.1% ($n = 43$) to determine whether studies met inclusion criteria. Reliability ranged from 92.1% to 100%. Disagreements were resolved through discussion and consensus was reached. This resulted in an additional 25 articles that met all inclusion criteria.

Charting the Data

The first author reviewed all articles and created a codebook of study characteristics. The second author independently reviewed the codebook and met with the first author multiple times to determine whether all important study characteristics were captured. As a result, codes were redefined, moved, or added to the codebook. The two authors determined that the following study characteristics would be coded: (a) research design, (b) data source(s), (c) type of CBWEs investigated, (d) participants, and (e) number of students and primary disability type. The first author and a graduate student then independently coded 10 articles at a time. They met to discuss each article until 100% agreement was reached. Per discussion, some codes were redefined and data were recoded if necessary. The first author and graduate student repeated this process until all studies were coded.

The first author then reviewed each study again to identify the study's foci as defined by the researchers. Once the foci of each study were identified, the first author reviewed the data to identify an initial set of categories within each focus area. The second author then independently reviewed each study's foci and the proposed categories. The two authors discussed whether the categories accurately represented each focus area until consensus was reached. Discussions resulted in minor changes. The first author and a graduate student then independently reviewed each study and identified which categories best represented the study's focus. For each category represented in a study, they identified findings that clearly related only to students with ID or findings that represented at least 50% of students with ID. Data in which it was unclear if it represented students with ID were not analyzed. The first author and graduate student discussed their independent ratings until 100% agreement was reached.

Findings

A total of 54 studies published between 1980 and 2020 met inclusion criteria. The majority of studies focused only on students with ID ($n = 34$, 63%). Of the 20 studies with at least 50% of students with ID that included some students with other disabilities, 15 (27.7%) disaggregated by disability type and 5 (9.3%) did not disaggregate by disability type. Findings are presented by (a) study characteristics and (b) area of focus.

Study Characteristics

Studies varied by type of research design, data source(s), participants, and type of CBWE(s) investigated (see Table 1). The majority of studies were correlational ($n = 30$, 55.6%), descriptive designs ($n = 13$, 24.1%), or case studies ($n = 6$, 11.1%). Most studies used multiple sources of data. The most frequently used sources were interviews ($n = 36$, 66.7%), questionnaires/surveys ($n = 25$, 46.3%), existing documents and records ($n = 18$, 33.3%), or field note observations ($n = 9$, 16.7%). A total of five studies (9.3%) analyzed data from the National Longitudinal Transition Study-2 (NLTS-2), a national study investigating the transition experiences of students with disabilities. Data were typically collected from more than one type of participant; most studies collected data from students with ID ($n = 34$, 63%), parents/guardians of students with ID ($n = 33$, 61.1%), or special education teachers ($n = 16$, 29.6%). Finally, paid work ($n = 26$, 48.1%), general work experiences ($n = 12$, 22.2%), internships ($n = 11$, 29.6%), and job shadowing ($n = 9$, 16.7%) were the most frequently investigated CBWEs.

Table 1. Summary of Included Studies.

Authors	Focus of study	Research design	Data source	Type of CBWE	Participants	Students with disability
Agran et al., 1999	Describe perceptions	Descriptive	Questionnaires	Community-based vocational instruction	Sped teachers	N/R
Baer, Daviso, Flexer, et al., 2011	Post-school outcomes Describe participation	Correlational	Questionnaires Documents/ records Interviews	Work study	Students with ID Parents/guardians	321 ID 88 Multiple 871 LD 116 OHI 79 EBD
Baer, Daviso, Queen, et al., 2011	Correlates— CBWE Describe participation	Correlational	Documents/ records Interviews	Paid employment	Students with ID Parents/guardians	2249 LD 810 ID 180 Multiple 280 OHI 222 EBD
Baer et al., 2007	Describe participation Correlates- CBWE	Correlational	Documents/ records Interviews	Work study Supported employment	Students with ID Parents/guardians	416 LD 179 ID 42 OHI 28 EBD 15 Hearing 11 Multiple 9 Visual 5 Autism 5 Orthopedic 5 TBI 3 Speech/Lang 1 Deaf/Blind
Benz & Halpern, 1993	Describe participation Correlates- CBWE	Correlational	Questionnaires Interviews	Paid employment Paid employment	Parents/guardians Sped teachers	422 Other ^a
Bonati & Dymond, 2019	Describe participation	Case study	Observations (FN) Observations (S) Interviews Focus groups	Service learning	Students with ID Sped teachers Other: Food pantry coordinator	2 Mod ID 1 Sev ID
Bouck & Joshi, 2016	Describe participation	Descriptive	NLTS-2 Database	Paid employment Job shadowing Internship Apprenticeship	Students with ID Parents/guardians Other school staff	32,239 Mild ID
Brady et al., 2010	Describe perceptions	Correlational	Interviews Questionnaires	Supported employment	Students with ID Sped teachers	3 Mild ID 20 Mod-Sev ID
Brown, 2000	Correlates- CBWE	Multiple methods	Documents/ records Interviews	Job training in real work settings Paid employment	Students with ID Parents/guardians Sped teachers Administrators	144 Mod-Sev ID ^b 6 Mod-Sev ID ^c
Carter et al., 2009	Describe participation Correlates- CBWE	Randomized control trial	Interviews Questionnaires	Paid summer employment Unpaid summer employment Sheltered employment	Students with ID Parents/guardians	9 Autism 57 Sev-Prof ID 13 Speech/Lang 5 OHI 3 Visual 2 Orthopedic
Carter, Ditchman, et al., 2010	Describe participation Correlates- CBWE	Correlational	Questionnaires Interviews	Paid summer employment Unpaid employment Sheltered employment Internship	Students with ID Parents/guardians	16 Sev-Prof ID 14 Autism 6 Orthopedic

(continued)

Table 1. (continued)

Authors	Focus of study	Research design	Data source	Type of CBWE	Participants	Students with disability
Carter, Trainor, et al., 2010	Describe participation Correlates-CBWE	Correlational	Questionnaires	Job shadowing Career exploration Apprenticeship Internship	Administrators Other school staff	N/R
Carter, Austin, et al., 2011	Describe participation Correlates-CBWE	Correlational	NLTS-2 Database	Paid employment Job shadowing Internship	Parents/guardians Administrators School personnel	390 Sev-Prof ID 520 Autism 600 Multiple
Carter, Trainor, et al., 2011	Describe participation Correlates-CBWE	Correlational	Interview Questionnaires	Paid summer employment Unpaid summer employment	Students with ID Parents/guardians Sped teachers	57 Mild ID 97 LD 66 EBD
Carter et al., 2012	Post-school outcomes	Correlational	NLTS-2 Database	Paid employment Job shadowing Work study	Students with ID Parents/guardians Administrators Other school staff	160 Autism 120 Sev-Prof ID 170 Multiple
Chadsey-Rusch, 1990	Describe participation	Descriptive	Observations (FN) Questionnaires Interviews	Community-based vocational instruction	Parents/guardians Sped teachers	10 Sev-Prof ID
Cimera, 2010	Post-school outcomes	Correlational	Documents/ records	Job shadowing Job sampling Paid employment	Students with ID Parents/guardians Job coaches Other: Case coordinators	N/R
Clarke et al., 1980	CBWE program	Quasi-experimental	Questionnaires	Paid summer employment	Parents/guardians Employers or coworkers Sped teachers	8 Mod ID 2 Sev ID N/R
Cook, 2002	Describe perceptions	Analogue	Questionnaires	Work experiences	Sped teachers	N/R
Daviso et al., 2016	Post-school outcomes	Correlational	Questionnaires Documents/ records Interviews	Work study Work experiences Paid employment	Students with ID Parents/guardians	4,952 disability ^d
Dolyniuk et al., 2002	CBWE program	Descriptive	Journals Observations (FN) Questionnaires Interview Anecdotal	Job sampling	Students with ID Parents/guardians Other: University students	17 Mild-Mod
Fabian, 2007	Correlates-CBWE	Correlational	Documents/ records Interviews Questionnaires	Paid employment	Other school staff	2,777 LD 504 ID 339 ED
Frank et al., 1990	Post-school outcomes	Correlational	Interviews	Work experiences Paid employment	Students with ID Parents/guardians	318 ID
Gallivan-Fenlon, 1994	Describe participation Stakeholder perceptions	Descriptive	Interviews Observations (FN) Documents/ records	Community-based vocational instruction	Students with ID Parents/guardians Sped teachers Employment specialists Employers or coworkers	11 Mod-Sev ID
Garcia-Iriarte et al., 2007	Describe participation Correlates-CBWE	Correlational	Documents/ records	Internship Paid employment	Employment specialists	29 LD 22 ID 10 ED 4 Hearing

(continued)

Table I. (continued)

Authors	Focus of study	Research design	Data source	Type of CBWE	Participants	Students with disability
Gold et al., 2013	Correlates-CBWE	Correlational	Interviews	Paid employment	Students with ID Parents/guardians	4,089 LD 649 ID 433 EBD
Gormley, 2015	CBWE program	Descriptive	Interviews	Internship	Other: Supervisor or mentor of students with ID	N/R
Hasazi, Gordon, & Roe, 1985	Post-school outcomes	Correlational	Questionnaires Interviews Documents/ records	Work experiences Paid employment Paid summer employment	Students with ID Parents/guardians Other: Direct support personnel	296 Mild ID 129 ID
Hasazi, Gordon, Roe, Hull, et al., 1985	Post-school outcomes	Correlational	Interviews Documents/ records	Work experiences Paid summer employment Paid employment	Students with ID Parents/guardians Other school staff Other: Direct support personnel	209 Mild-Mod 25 Mod-Sev 9 ID
Johnson et al., 1996	Describe participation	Correlational	Questionnaires Interviews	Paid employment	Students with ID	112 Mild ID 107 Mod ID 101 Sev-Prof ID 18 ID
Joshi et al., 2012	Describe participation Correlates-CBWE Post-school outcomes	Correlational	NLTS-2 Database	Paid employment Job shadowing Internship Apprenticeship	Students with ID Parents/guardians Sped teachers Other school staff	62,513 Mild ID
Kamens et al., 2003	CBWE program	Descriptive	Questionnaires Journals Observations (FN) Documents/ records Transcripts	Job sampling	Students with ID Other: University students	17 Mild-Mod ID
Kohler, 1994	CBWE program	Correlational	Observations (S)	Job training in real work setting	Sped teachers Employers/ coworkers	31 Mild-Mod ID 23 LD 4 EBD
Kraemer & Blacher, 2001	Describe participation	Correlational	Questionnaires Interviews	Job shadowing	Parents/guardians	52 Sev-Prof ID
Kraemer et al., 2003	Post-school outcomes	Correlational	Questionnaires Interviews	Paid employment	Parents/guardians	188 Mod-Sev ID
Lichtenstein & Michaelides, 1993	Describe participation	Case study	Interviews Documents/ records	Paid employment Supported employment Work study Job training in real work settings	Students with ID Parents/guardians Sped teachers Employment specialists	4 ID
Lindstrom et al., 2014	Describe participation Stakeholder perceptions	Case study	Questionnaires Interviews Documents/ records Observations (FN)	Work experiences	Students with ID Parents/guardians Employment specialist Job coach Employer/ coworkers	4 ID
Luecking & Fabian, 2000	Correlates-CBWE	Correlational	Questionnaires Interviews	Internship	Employer/ coworkers Students with ID Parents/guardians	1,726 LD 537 ID 448 ED 181 Other

(continued)

Table 1. (continued)

Authors	Focus of study	Research design	Data source	Type of CBWE	Participants	Students with disability
Luecking & Wittenberg, 2009	CBWE program	Case study	Interviews	Career exploration Job shadowing Job sampling Internship Apprenticeship Paid employment	Students with ID	3 Sev-Prof ID
Molfenter et al., 2017	CBWE program	Descriptive	Questionnaires	Paid employment	Sped teachers	62 ID
Molina & Demchak, 2016	CBWE program	Descriptive	Questionnaires	After-school work camp	Sped teachers	18 Mod-Sev ID
Moon et al., 2011	Describe perceptions	Descriptive	Questionnaires Interviews	Paid employment Supported employment	Employment specialists	N/R
Neubert & Redd, 2008	CBWE program	Case study	Interviews Focus groups Observations (FN) Documents/records	Paid employment Supported employment Job training in real work settings	Students with ID Sped teachers Other school staff Employment specialist	12 ID 3 LD 1 EBD
Park & Bouck, 2018	Describe participation Post-school outcomes	Correlational	NLTS-2 Database	Job shadowing Internships Apprenticeships	Students with ID Parents/guardians Administrators	64,096 ID
Powers et al., 2005	Correlates-CBWE	Correlational	Documents/records	Work experiences	Students with ID	119 LD 106 ID 91 ED 82 Physical N/R
Riesen & Oertle, 2019	Stakeholder perceptions	Correlational	Questionnaire	Job training in real work settings	Employers	N/R
Schalock et al., 1986	CBWE program	Descriptive	Interviews	Job exploration training site	Students with ID Parents/guardians	65 LD 31 Mild-Mod ID 12 Sev-Prof ID
Schuster et al., 2003	Describe participation	Descriptive	Interviews	Paid employment	Students with ID Parents/guardians	2 LD 3 ID 1 Psychiatric 6 Multiple 338 ID
Simonsen & Neubert, 2013	Post-school outcomes	Correlational	Questionnaires	Paid employment Unpaid employment	Employment specialists	
Sitlington et al., 1992	Post-school outcomes	Correlational	Interviews Documents/records	Work experiences Paid employment	Students with ID Parents/guardians	737 LD 59 BD 142 Mild ID
Strater & Elfers, 2019	Describe participation	Grounded theory	Questionnaire Photographs Interviews Observations (FN)	Internship	Students with ID Parents Employment specialists Program instructor	9 Mod-Sev
Timmons et al., 2011	Describe participation	Descriptive	Interviews	Work experiences	Students with ID Parents/guardians Employment specialists	16 ID

(continued)

Table 1. (continued)

Authors	Focus of study	Research design	Data source	Type of CBWE	Participants	Students with disability
Valentini et al., 2019	Stakeholders' perceptions	Case study	Interviews	Work experiences	Employers	N/R
White & Weiner, 2004	Post-school outcomes	Correlational	Interviews Documents/ records Observations (FN)	On the job training	Sped teachers Administrators	26 Prof ID 24 Sev ID 27 Mod ID 27 Mild ID

Note. N/R = participants reported general data about students with ID, but did not focus on specific students with ID; Sped = special education; ID = intellectual disability; Multiple = multiple disabilities; LD = learning disabilities; OHI = other health impairment; EBD = emotional and behavioral disorder; Hearing = hearing impairment; Visual = visual impairment; CBWE = community-based work experience; TBI = traumatic brain injury; Speech/Lang = speech and language impairment; FN = field notes; S = systematic; Mod = moderate; Sev = severe; Prof = profound; BD = behavioral disorder.

^aStudents were not specifically described in the method. However, students were described in the results as having mild mental retardation, emotional disabilities, or learning disabilities. ^bNumber of students included in quantitative analyses. ^cNumber of students included in case study analyses. ^dData were analyzed by student disability type, but authors did not report total number of students with each type of disability.

Of the 54 articles included in the review, 85.1% ($n = 46$) reported the number and disability type of students represented within the study (see Table 1). There were eight studies that did not report data about specific students with ID. For these studies, the number of students with disabilities is not reported. Across the 46 studies, data represented 188,103 students with different types of disabilities. There were 165,183 (87.8%) students identified with ID, of which 96,768 (58.8%) were described by their level of ID. Of the studies that defined students by level of ID, 95,389 (98.6%) of students had mild ID, 144 (0.1%) had moderate ID, 305 (0.3%) had mild-moderate ID, 421 (0.4%) had moderate-severe ID, and 761 (0.8%) had severe-profound ID. Studies also included students with learning disabilities ($n = 13,203$, 7%), unspecified disabilities ($n = 4,952$, 2.6%), multiple disabilities ($n = 1,055$, 0.6%), and other disabilities ($n = 3,709$, 1.9%).

Area of Focus

Studies clustered within five focus areas: (a) descriptions of student participation in CBWEs ($n = 23$), (b) correlates of student participation in CBWE ($n = 15$), (c) relations between student participation in CBWEs and post-CBWE outcomes ($n = 13$), (d) descriptions of transition programs that include CBWEs ($n = 9$), and (e) descriptions of stakeholders' perceptions of student participation in CBWEs ($n = 9$). Each study had one to three areas of focus ($M = 1.01$). Focus areas included two to six different categories. Only data specifically about students with ID or data representing at least 50% of students with ID are reported in the remaining sections.

Descriptions of student participation in CBWEs. Over one-third of studies ($n = 23$) focused on describing student participation in CBWEs. Researchers investigated (a) the types of CBWEs in which students participated, (b) the characteristics of students' CBWEs, and (c) supports students received.

Types of CBWEs. There were some consistent trends in the types of CBWEs in which students participated. According to data from the NLTS-2, approximately a third of students with mild and severe ID participated in job shadowing whereas only 10% of students with mild and severe ID participated in internships/apprenticeships (Bouck & Joshi, 2016; Carter, Austin, et al., 2011; Joshi et al., 2012; Park & Bouck, 2018). Although data from the NLTS-2 suggests that students with mild and severe ID participate in job shadowing, internships, and apprenticeships to the same extent, other research suggests students with severe ID may have limited access to these experiences. Administrators from Tennessee ($n = 24$) reported that few to

no students with severe ID participated in job shadowing, internships, or apprenticeships (Carter, Trainor, et al., 2010). The only CBWEs in which the majority of students with severe ID participated were tours of local businesses or industries. Only one study investigated the extent to which students with ID participate in work-study; according to Baer, Daviso, Flexer, et al. (2011) almost half of students with ID participate in work study during high school.

Student participation in paid work during high school has received more attention. According to Baer, Daviso, Queen, et al. (2011), approximately a third of students with ID ($n = 37$) participate in paid work. Although two studies found that a large number of students with severe ID had paid work during high school (Benz & Halpern, 1993; Kraemer & Blacher, 2001), other studies suggest that the extent to which students with ID participate in paid work may vary by student's support needs. For example, some researchers found that almost two-thirds of students with mild ID participated in paid work ($n = 21,040$, 63.5%, Bouck & Joshi, 2016; $n = 51,906$, 59.7%, Joshi et al., 2012), whereas other researchers found that only a third of students with severe ID participated in paid work ($n = 50$, 31.3%, Carter, Austin, et al., 2011). According to Carter, Austin, et al. (2011), the majority of students with severe ID did not work at all ($n = 410$, 58.2%) or had an unpaid work study ($n = 60$, 10.5%). Johnson et al. (1996) also found that fewer students with severe ID (vs. students with mild to moderate ID) worked for pay. Students with severe ID may also have limited participation in summer paid work compared with their peers with less significant ID; Carter, Ditchman, et al. (2010) found that only 16.1% ($n = 22$) of students with severe ID had paid summer work, while Carter, Trainor, et al. (2011) found that 41.1% ($n = 23$) of students with mild ID had paid summer work.

One additional study (Baer et al., 2007) conducted a cluster analysis to describe student participation in work study programs. Students with ID fell into one of the two clusters. The first cluster was characterized by students who had high rates of participation in work-study programs, post-school employment goals, low rates of participation in regular academics, high levels of alternate achievement standards, and low rates of passing ninth-grade proficiency tests. The second cluster was characterized by students who had lower rates of participation in work study programs, goals to attend a 2-year college, and semi-integrated academics.

Characteristics of CBWEs. A number of studies described the characteristics of students' CBWEs. Regardless of student's support needs, CBWEs were mainly in entry level positions such as food services and janitorial work; students earned minimum wage, worked part-time, and received no major benefits (Carter, Austin, et al., 2011; Johnson et al., 1996; Kraemer & Blacher, 2001; Lichtenstein & Michaelides, 1993; Lindstrom et al., 2014). Furthermore, students' jobs were not always aligned to their interests and preferences (Schuster et al., 2003). For example, one student with severe ID expressed that although they wanted to work in an auto body shop, their CBWE was at a landscaping business. Only one study described student interactions during community-based vocational instruction; the majority of interactions in which students with severe ID engaged was initiated by teachers and related to work tasks (Chadsey-Rusch, 1990).

An additional two studies described the types of goals students worked on during CBWEs. Students with severe ID who participated in a service learning project focused on curricular goals related to Jewish values (e.g., volunteering, kindness) and functional skills (e.g., completing vocational tasks, communicating effectively, and increasing mobility; Bonati & Dymond, 2019). During a Project Search internship, most students with moderate-to-severe ID focused on goals that were transferable to other jobs, whereas fewer students focused on goals specific to their job site (Strater & Elfers, 2019).

Carter and colleagues described the characteristics of summer work experiences for students with mild (Carter, Trainor, et al., 2011) and severe ID (Carter et al., 2009; Carter, Ditchman, et al., 2010). In general, students' summer work experiences were similar despite level of ID. Parents and school staff were often responsible for finding CBWEs for students. The three most frequent jobs in which students worked were cleaning, food service, and stocking. Almost all students worked during the weekdays, whereas fewer students worked on the weekends. Both students with severe ID and students with less significant support needs earned approximately the same hourly wages (US\$6.80, US\$6.56, respectively), received supports from school staff and employment agencies throughout the summer, and relied on special transportation or family for transportation to their work experience.

Supports. CBWEs were further described by the supports provided to help students find work experiences and the supports provided to students during work experiences. A variety of different stakeholders helped students find CBWEs. Teachers and other high school staff often provided students with ID with their first paid work experience, internship, or volunteer experience (Timmons et al., 2011). Parents were also frequently cited as responsible for finding summer work experiences for students with ID (Carter, Ditchman, et al., 2010; Carter, Trainor, et al., 2011). Interestingly, the only study in which employment specialists helped students find jobs was a multicomponent intervention targeted at increasing the participation of students with severe ID in summer work experiences (Carter et al., 2009).

Students who participated in CBWEs during the school year received support from teachers, paraprofessionals, coworkers, fellow interns, and case managers (Bonati & Dymond, 2019; Gallivan-Fenlon, 1994; Garcia-Iriarte et al., 2007; Strater & Elfers, 2019), whereas students who participated in CBWEs during the summer received supports from either school staff or employment specialists (Carter et al., 2009; Carter, Ditchman, et al., 2010; Carter, Trainor, et al., 2011). Students received a variety of different types of supports during CBWEs. During a service learning project, students with severe ID were provided with verbal prompts and redirection to support the completion of their work (Bonati & Dymond, 2019). In a Marriott Bridges internship program for urban minority youth (Garcia-Iriarte et al., 2007), case managers provided students with job-specific supports (e.g., job seeking skills) and off-site supports (e.g., contact with teachers, transportation support) prior to the internship. Once students were working, they continued to receive job-specific supports such as orientation/training, job coaching, site visits, discussions with participants' supervisors, work-related problem resolution, and discussion of job-related issues. The types of supports students received differed based on level of disability (Garcia-Iriarte et al., 2007). Students with severe ID received more orientation/training and job coaching, whereas students with learning disabilities received more support discussing non-job-related issues.

Correlates of student participation in CBWEs. Fifteen studies identified correlates of student participation in CBWEs during high school. These studies describe the extent to which student characteristics, student skills and experiences, community and school factors, stakeholder expectations, supports provided, and transition mandates relate to whether or not students with ID participate in CBWEs during high school.

Student characteristics. One of the most common correlates investigated was student characteristics (i.e., disability, gender, ethnicity, and student age). Interestingly, the majority of findings across studies contradict each other and do not clearly identify the extent to which student characteristics relate to participation in CBWEs. The largest number of studies investigated the relation between type of disability and student participation in CBWEs. These studies suggest that students with ID were more likely to participate in CBWEs (e.g., supported employment, work and paid work experience) than students with other types of disabilities (i.e., learning disabilities, autism, emotional behavioral disorders, or other health impairments; Baer et al., 2007; Baer, Daviso, Queen, et al., 2011; Benz & Halpern, 1993; Carter, Austin, et al., 2011). According to Powers et al. (2005), students with ID were also more likely to have jobs described as "disability stereotypic" compared with students with other disabilities (e.g., emotional disabilities, learning disabilities, or physical disabilities). In contrast, Carter, Trainor, et al. (2010) and Gold et al. (2013) suggest that students with ID were significantly less likely to participate in CBWEs than their peers with emotional behavioral disorders or learning disabilities. Furthermore, type of disability did not relate to student participation in paid employment (Fabian, 2007; Luecking & Fabian, 2000) or summer work experiences (Carter, Trainor, et al., 2011).

Findings related to gender, ethnicity, and age were also mixed. According to Gold et al. (2013), females with ID have lower rates of paid work during high school than males with ID. Other researchers (Baer, Daviso, Queen, et al., 2011; Carter, Austin, et al., 2011; Carter, Ditchman, et al., 2010) found gender unrelated to paid work. These researchers also had mixed results in regard to ethnicity. Most researchers that have examined ethnicity (i.e., Baer, Daviso, Queen, et al., 2011; Carter, Ditchman, et al., 2010; Gold et al., 2013) found no relation between ethnicity and paid work experiences; however, Carter, Austin, et al. (2011) found that Hispanic students with ID were significantly less likely to have paid work experiences than

White students with ID. The relation between students' age and participation in CBWEs is also unclear. Although students who were older (vs. younger) were more likely to have paid work experiences and higher weekly earnings, age was not a significant correlate of weekly earnings once additional variables (e.g., student skills and previous work experiences) were added to the regression model (Carter, Ditchman, et al., 2010; Carter, Trainor, et al., 2011).

Student skills and experiences. Students with certain skills may be more likely to participate in CBWEs. Specifically, students who were able to communicate well with others, travel to locations outside of their home, engage in self-care, and had more employment skills (e.g., know how to obtain a job, general job skills) were more likely to have paid work during high school (Carter, Austin, et al., 2011; Carter, Ditchman, et al., 2010). Other student skills such as social skills, behavior, and self-determination were not significantly related to student participation in paid work. Student skills may also relate to earnings; students who were rated by teachers to have greater employment skills had higher weekly summer job earnings than students who were rated as having fewer employment skills (Carter, Trainor, et al., 2011).

Students' prior experiences with CBWEs may prepare them for future CBWEs. For example, students who had paid or unpaid spring work experiences were more likely to participate in paid summer work than students who did not have spring work experiences (Carter, Ditchman, et al., 2010). Students who participated in internships were also more likely to participate in paid work during high school; however, experiences such as job shadowing had no effect on whether students had paid work during high school (Carter, Austin, et al., 2011). Having previous CBWEs also impacted earnings of students with paid summer work; students who had spring work experiences had higher weekly earnings over the summer than students who did not have spring work experiences (Carter, Trainor, et al., 2011).

Community and school factors. There is limited understanding of how community and school factors relate to student participation in CBWEs. According to Joshi et al. (2012), students who attended schools with a large number of students receiving special education services were almost 4 times less likely to have paid work during high school than students who attended schools with fewer students receiving special education services. In regard to community factors, researchers found mixed results. Whereas two studies found that students from schools in urban areas were more likely to have paid work than students in rural areas (Baer, Daviso, Queen, et al., 2011; Joshi et al., 2012), one study found that students from rural, suburban, and urban areas participated in paid work to a similar extent (Carter, Austin, et al., 2011). Furthermore, students who lived in communities with transportation available for people with disabilities were more likely to have paid work; however, attendance at a neighborhood school and the availability of local public transportation did not relate to student participation in paid work (Carter, Austin, et al., 2011).

Stakeholder expectations. Students with parents and teachers who had high expectations for them were more likely to participate in CBWEs. For example, students with parents who expected them to eventually be self-supporting and required them to complete household responsibilities were more likely to have paid work during high school (Carter, Austin, et al., 2011). In addition, students of teachers who expected them to have paid work in the summer were almost 15 times more likely to work than students of teachers who did not expect them to work in the summer (Carter, Ditchman, et al., 2010).

Supports provided. Two studies investigated the relation between the types of supports provided to students with severe ID and student participation in CBWEs during high school (Carter et al., 2009; Garcia-Iriarte et al., 2007). Carter et al. (2009) found that students with severe ID who participated in a multicomponent intervention consisting of summer focused planning, community connectors, and employer liaisons were more likely to be employed during the summer than students who did not participate in the intervention. According to Garcia-Iriarte et al. (2007), pre-employment supports (e.g., job seeking) and employment supports (e.g., orientation/training, job coaching, site visits) did not relate to students' obtaining employment; however, students who received job-specific work supports (e.g., job interview preparation, site visits) and off-site work supports (e.g., contact with teachers, transportation support) were more likely to retain their job than students who did not receive these supports.

Transition mandates. Only one study investigated the relation between transition mandates and students' participation in CBWEs. According to Brown (2000), high school programs became more community-based and employment-focused after the addition of transition mandates to IDEAs. 306 (1990).

Relations between student participation in CBWEs and post-CBWEs outcomes. A number of studies investigated the extent to which student participation in CBWEs related to certain post-CBWE outcomes ($n = 13$). These studies identified types of CBWEs related to outcomes and types of CBWEs unrelated to outcomes.

Types of CBWEs related to outcomes. The majority of studies focused on the relation between student participation in paid work during high school and students' post-school outcomes. Regardless of level of ID, students who had paid work during high school were more likely to be employed after high school graduation than students who did not have paid work during high school (Carter et al., 2012; Hasazi, Gordon, & Roe, 1985; Joshi et al., 2012; Simonsen & Neubert, 2013; Sitlington et al., 1992). Participation in paid work during high school also related to student's post-school quality of life. Families of students with paid work during high school described students as having higher levels of competence, empowerment, and social belonging than families of students who did not have paid work during high school (Kraemer et al., 2003). Students who were employed also had higher scores on measures of social belonging and community involvement (e.g., adaptive behaviors and social networks; Kraemer et al., 2003). Only one study evaluated the relation between on-the-job training and student outcomes; the number of hours students received on-the-job training significantly increased the likelihood that students would engage in integrated employment after graduation (White & Weiner, 2004).

Student experiences over summer also improved students' post-school outcomes. Students with ID who had summer employment were more likely to be engaged in post-school employment and have higher wages than students who did not have these experiences (Hasazi, Gordon, & Roe, 1985; Hasazi, Gordon, Roe, Hull, et al., 1985). The type of summer experience may impact student's post-school employment outcomes; students with unsubsidized summer experiences had higher rates of post-school employment than students with subsidized summer experiences (Hasazi, Gordon, & Roe, 1985). Interestingly, these authors also found that summer employment did not relate to the percentage of time students were employed since graduation.

Student participation in CBWEs may also result in positive fiscal outcomes for taxpayers. Supported employees who received community-based transition services during high school (e.g., job shadowing, job sampling, and paid jobs) were more cost-effective to taxpayers than supported employees who did not receive these services during high school (Cimera, 2010).

Types of CBWEs unrelated to outcomes. Participation in some types of CBWEs did not relate to student outcomes. For example, Park and Bouck (2018) found that student participation in job shadowing, internships, and apprenticeships was unrelated to their post-school employment status. In addition, work experiences during high school were unrelated to students' post-school employment status (Daviso et al., 2016; Frank et al., 1990; Hasazi, Gordon, & Roe, 1985; Hasazi, Gordon, Roe, Hull, et al., 1985; Sitlington et al., 1992). Only three of these studies provided a definition of "work experiences." Daviso et al. (2016) defined work experiences as those in which students worked in the community and received supervision from job training coordinators. Hasazi and colleagues described work experiences as short term, unpaid, or paid experiences that rarely had the same contingencies as typical jobs (Hasazi, Gordon, & Roe, 1985; Hasazi, Gordon, Roe, Hull, et al., 1985). Similar to work experiences, three studies found that work study was not a significant predictor of post-school employment for students with severe ID (Carter et al., 2012) or students with ID (Baer, Daviso, Flexer, et al., 2011; Daviso et al., 2016). Of these, two provided definitions for work study. Carter et al. (2012) defined work study as unpaid school-sponsored work and Daviso et al. (2016) defined work study as experiences in which students received credit or were excused from class to work.

Descriptions of transition programs that include CBWEs. Some researchers sought to describe transition programs that included a CBWE ($n = 9$). All of these studies described program components, students served, and student outcomes as a result of participating in the transition program.

Program components and students served. Transition programs included CBWEs such as supported employment (Neubert & Redd, 2008), summer employment (Clarke et al., 1980), job sampling (Dolyniuk et al., 2002; Kamens et al., 2003), paid work (Molfenter et al., 2017; Neubert & Redd, 2008), on-the-job training (Kohler, 1994; Neubert & Redd, 2008), after-school work camps (Molina & Demchak, 2016), job exploration training (Schalock et al., 1986), or individualized work experiences (i.e., combination of multiple different CBWEs; Luecking & Wittenberg, 2009). For most transition programs, CBWEs were just one component of the program. Other components included activities such as collaboration across agencies, benefits planning, identifying additional opportunities for inclusion within the school, parent involvement, and school-based instruction on vocational skills. Programs typically focused on students with a specific level of ID; three programs targeted students with severe-profound ID (Clarke et al., 1980; Luecking & Wittenberg, 2009; Molina & Demchak, 2016) whereas three were specifically for students with mild-moderate ID (Dolyniuk et al., 2002; Kamens et al., 2003; Kohler, 1994).

Program outcomes. Students generally experienced positive outcomes as a result of participating in transition programs that include CBWEs. For example, students who participated in a transition program with paid work reported that they enjoyed getting paid and felt more prepared for post-school life; however students who participated in a transition program that used an enclave model (i.e., multiple students with disabilities at same work site) described frustrations with the limited amount of independence they had at their work site (Neubert & Redd, 2008). During transition programs that include CBWEs, students practiced a variety of skills including functional and social-skills (Dolyniuk et al., 2002). Students also increased their work skills (Clarke et al., 1980; Kohler, 1994; Luecking & Wittenberg, 2009), quality of life and self-determination (Molfenter et al., 2017), career awareness (Dolyniuk et al., 2002), and sense of control over their lives (Molina & Demchak, 2016). Only one study found that the majority of students did not benefit from participation in a transition program that included job exploration training (Schalock et al., 1986). Of the 12 students with ID who participated, only three were employed after the program; the majority of students were unemployed or at a community-based program for students with ID.

Researchers also investigated outcomes related to stakeholder perceptions of the employability of students with ID who participated in a transition program with a CBWE (Clarke et al., 1980; Kamens et al., 2003; Molina & Demchak, 2016). Preservice teachers who supported students with mild-to-moderate ID at a transition program with a job-sampling experience reported higher expectations toward people with disabilities after the program (Dolyniuk et al., 2002; Kamens et al., 2003). Business owners reported that their businesses were better off after hosting students with moderate-to-severe ID during an after-school work camp (Molina & Demchak, 2016). According to Clarke et al. (1980), parents viewed a work experience program as a valuable experience for their students with moderate or severe ID and perceived their students as less socially withdrawn, tense, and defiant as a result of the program.

Descriptions of stakeholders' perceptions of student participation in CBWEs. Nine studies described stakeholders' perceptions of student participation in CBWEs. Researchers described stakeholders' perceptions about (a) benefits of student participation in CBWEs, (b) concerns about student participation in CBWE, and (c) students' skills.

Benefits of student participation in CBWEs. Stakeholders identified a variety of benefits related to student participation in CBWEs. According to teachers, community-based vocational instruction promoted generalization of students' skills across settings, provided opportunities for students to interact with nondisabled peers, allowed students to perform skills in natural settings, increased students' independence, and prepared students for post-school life (Agran et al., 1999). Parents, students, and adult agency personnel perceived that CBWEs exposed students to a variety of work environments, provided students with the opportunity to master basic work skills, increased their sense of self-worth, and taught students how to be independent within the workplace (Gallivan-Fenlon, 1994; Lindstrom et al., 2014). Employers also perceived that benefits existed to CBWEs; student participation in CBWEs contributed to the development of their local workforce and communities, increased their productivity, built a positive workplace atmosphere, and expanded

their networks (Riesen & Oertle, 2019). It is interesting to note that stakeholders may perceive that some work experiences are more beneficial than others. Community rehabilitation providers (CRPs) perceived that paid work was more beneficial for students than unpaid work (Moon et al., 2011). Students who had paid work during high school were also perceived as easier to place in paid employment after graduation.

Concerns about student participation in CBWEs. Stakeholders also described concerns about student participation in CBWEs. Although parents and students generally felt positive about community-based vocational training, they expressed frustration that students were not compensated for their work (Gallivan-Fenlon, 1994). Employers also had concerns about student participation in CBWEs. Employer concerns were related to the difficulty of the work, student integration in the workplace, matching students to jobs, and student well-being (Riesen & Oertle, 2019). However, few employers expressed concerns about school support, employees' and patrons' responses to students, student performance, or student compensation. Employers also described challenges they experienced when partnering with schools to provide CBWEs (Valentini et al., 2019). These challenges related to program organization (e.g., multiple students at one site), time investments, clear expectations for employers and employees, and lack of communication with the school's transition program. Employees may also have concerns about student participation in CBWEs. Co-workers of students with ID in Project Search expressed initial concerns about students' abilities and the amount of time they would need to support students; however, once they spent time with the students, they perceived students as capable and competent employees (Gormley, 2015).

Student skills. Teachers' perceptions about students' work skills were also investigated. In one study, teachers were asked to rate the job competencies (e.g., reliability, productivity, social coping, organizational coping, and safety) of hypothetical students in work experiences, inclusive general education classes, or special education classes (Cook, 2002). Students with work experiences were perceived to have similar job competencies as students in inclusive general education and special education classes. Another study found that teacher ratings' of students' performance and support needs did not match students' self-ratings (Brady et al., 2010). Students believed they had better work performance and required less support than their teachers reported.

Discussion

The purpose of this literature review was to describe the existing empirical research about the participation of students with ID in CBWEs. The 54 articles reviewed represented five different areas of focus: (a) descriptions of student participation in CBWEs, (b) correlates of student participation in CBWEs, (c) relations between student participation in CBWEs and post-CBWE outcomes, (d) descriptions of transition programs that include CBWEs, and (e) descriptions of stakeholders' perceptions of student participation in CBWEs. The results suggest that although there are a range of CBWEs that may be available to students with ID (e.g., job shadowing, service learning), researchers have predominantly focused on investigating student participation in paid work or general work experiences. Furthermore, the majority of researchers used interviews or questionnaires/surveys to collect data and employed descriptive or correlational research designs. Over half of the studies identified students' levels of support needs (e.g., mild ID, moderate ID, or severe ID); findings from these studies suggest that student participation in CBWEs may vary by students' support needs.

Our findings expand upon previous literature reviews in a few ways. First, previous reviews focused only on correlational research (see Mazzotti et al., 2021). The current review included all types of empirical literature. For instance, our review summarized descriptive literature about the types of CBWEs in which students with ID participated, characteristics of CBWEs, and supports students with ID received during CBWEs. By including all types of empirical literature, the current review provides a broader understanding of what is known from the literature about student participation in CBWEs. Second, some of our findings deviate from previous reviews. Findings from previous reviews suggest that students with disabilities who participate in work experiences are more likely to be employed after graduation than those who do not

participate in work experiences (Mazzotti et al., 2016, 2021; Test et al., 2009). According to our review, some CBWEs (e.g., paid work, summer employment, on-the-job training) related to student's post-school employment outcomes whereas other CBWEs (e.g., work experiences, work study, job shadowing, internships, and apprenticeships) did not relate to the post-school employment of students with ID. Our findings may differ from previous reviews because we focused only on students with ID and reviewed each type of CBWE separately whereas previous reviews focused on all students with disabilities and grouped all CBWEs into one work experience category.

Findings from this review also provide a better understanding of the participation of students with severe ID in CBWEs. For example, students with severe ID who participated in paid work were more likely to be employed after graduation than students with severe ID who did not participate in paid work (see Carter et al., 2012). This finding suggests that despite student's additional support needs, CBWEs may prepare students with severe ID for employment. Unfortunately, it is unclear whether students with severe ID access CBWEs to the same extent as their peers with mild ID. Whereas some studies suggest that students with severe ID participate in CBWEs to the same extent as students with mild ID (see Bouck & Joshi, 2016; Park & Bouck, 2018), other studies suggest that students with severe ID participate in CBWEs at lower rates than their peers with other disabilities (see Carter, Trainor, et al., 2010). Interestingly, students with severe and mild ID who participate in CBWEs appear to have similar types of experiences. They receive similar compensation, work approximately the same number of hours, and work in similar industries (e.g., food services, janitorial; see Carter, Austin, et al., 2011). Despite having similar types of experiences, students with severe ID may receive different types of supports. For example, students with severe ID who participated in an internship program received more orientation/training and job coaching than students with learning disabilities (Garcia-Iriarte et al., 2007).

Limitations

Interpretation of these findings should take into account limitations that exist. One of the most significant challenges while conducting the literature review was the limited description of CBWEs and participants provided by authors. Some studies were excluded due to ambiguity in the location of CBWEs and the characteristics of students who participated. As a result, there are likely studies that met inclusion criteria but were not included in the review. Furthermore, a large number of studies were identified through hand search procedures ($n = 25$) which suggests that the search terms used may not have been comprehensive. There were also some limitations to our data analysis procedures. For instance, we only analyzed findings that clearly related to students with ID or findings that represented at least 50% of students with ID. There were five studies in which it was not possible to disaggregate findings by disability. It is possible that findings presented from these studies represent students without ID. In addition, studies were coded based on the language authors used to describe each CBWE; however, authors rarely provided in-depth descriptions about CBWEs. This may have contributed to some errors in how CBWEs were coded and described. Another limitation relates to how studies were reviewed. Studies were not evaluated for quality and thus there may be methodological issues within the studies reviewed. Finally, although a thorough and systematic search of the literature was conducted, this review only included published studies in peer-reviewed journals and thus may be subject to publication bias.

Implications for Future Research

The findings from this review identify several gaps in the literature that warrant further investigation. According to the current review, researchers predominantly used questionnaires/surveys and interviews to describe student participation in CBWEs. Unfortunately, surveys and interviews are subject to measurement error (Groves et al., 2009); descriptions of students' experiences are dependent on participants' memory and perceptions rather than direct observations of students at CBWEs. Although some studies have collected field note observations of students during CBWEs, only two studies systematically observed students during CBWEs (Bonati & Dymond, 2019; Chadsey-Rusch, 1990). Additional observational

research is required to understand students' experiences during CBWEs. Specifically, observations of the instructional contexts of CBWEs (e.g., presence of instruction, who students interact with) may be needed to identify important components of CBWEs and understand how CBWEs can be structured to promote positive student outcomes.

All of the studies investigating the extent to which student participation in CBWEs related to post-school employment were correlational. Correlation does not necessarily mean causation; as such, it is unclear *why* students who participate in CBWEs have better post-school employment outcomes. To address this gap in the literature, intervention research is needed to determine a causal relation between student participation in CBWEs and student outcomes. Researchers may consider systematically manipulating components of CBWEs to determine which components are most beneficial to students. The different types of CBWEs may have different components (Luecking, 2020); identifying which components are related to positive student outcomes may help explain why some CBWEs are related to post-school employment whereas other CBWEs are not. Furthermore, intervention research could identify additional student outcomes that result from participating in CBWEs. Researchers may consider investigating student outcomes previously identified by stakeholders as valuable. For example, researchers could measure increases in students' self-worth (Gallivan-Fenlon, 1994), mastery of work skills, and independence in the workplace (Lindstrom et al., 2014).

Although the majority of studies reported students' level of support needs (e.g., mild, moderate, or severe), a large number of studies reported data more generally about students with ID. Findings from this review suggest that students' support needs may impact the extent to which they participate in CBWEs (see Carter, Trainor, et al., 2010) and the types of supports they receive during CBWEs (see Garcia-Iriarte et al., 2007). As a result, it may be beneficial for researchers to identify student's support needs or focus on students with specific levels of support needs. In particular, additional research is required to understand the participation of students with severe ID in CBWEs. Less than 2% of the students represented in this review had severe ID. The research that did focus on students with severe ID suggests that students with severe ID may have limited access to CBWEs and require different types of supports. Due to the relation between student participation in CBWEs and post-school employment (see Mazzotti et al., 2021), additional research is needed to understand how to include students with severe ID in CBWEs and how to support students with severe ID during CBWEs.

Implications for Practice

Our findings have implications for how teachers plan CBWEs for students with ID. First, our findings suggest that students with all levels of ID benefit from participating in CBWEs. Students with ID who participate in CBWEs have improved post-school outcomes (see Carter et al., 2012), learn a variety of skills (see Dolyniuk et al., 2002), and feel better prepared for post-school life (Neubert & Redd, 2008). These findings suggest that CBWEs may be a valuable learning experience for teachers to consider providing their students, irrespective of their students' levels of ID. Second, many researchers described student participation in CBWEs (see Carter, Austin, et al., 2011). Teachers may use these descriptions to inform which types of CBWE to provide, how they structure CBWEs, and the types of supports they provide students during CBWEs. Third, researchers identified correlates, such as student's skills, previous experiences, and types of supports, that increased the likelihood to which students with ID participate in CBWEs (see Carter, Trainor, et al., 2011). Understanding how these correlates relate to student participation in CBWEs may help teachers plan instruction that will prepare students with ID for CBWEs. Studies also suggest that student characteristics may relate to whether or not they participate in CBWEs (see Gold et al., 2013). It may be important for teachers to understand how student characteristics relate to participation in CBWEs so that teachers do not limit student's access to CBWEs based on their characteristics. In particular, teachers should not exclude students with severe ID because of their support needs. Finally, researchers described stakeholders' perceptions of benefits and challenges to including students with ID in CBWEs (see Valentini et al., 2019). To gain buy-in, teachers may need to consider and address these benefits and concerns with potential stakeholders.

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