What Do Transition Assessments Look Like for Students with a Significant Cognitive

Disability? A Multistate Survey of Educational Stakeholders

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Acknowledgements

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Abstract

Despite challenges educators face when assessing needs of students with a significant cognitive disability, providing fair and accurate assessment of skills is crucial to a student's future success. Dismal outcomes for these students indicate the current transition planning process is weak and not appropriate. Research suggests meaningful transition planning is facilitated by appropriate transition assessment to ensure students with a significant cognitive disability make progress, meet annual transition goals, have individualized supports and services, and receive effective instruction. The purpose of this study was to investigate the nationwide transition assessment process for students with a significant cognitive disability. Results indicated transition assessments are not fully assessing the needs of this population, thereby denying equal participation and access to inclusive environments.

Keywords: students with a significant cognitive disability, transition assessment

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The Individuals with Disabilities Education Act (IDEA; 2004) states the

purpose of special education is to provide a free and appropriate public education and related

services to meet the unique needs of students with disabilities in order to obtain further

postsecondary success in the areas of education/training, employment, and independent living.

Thus, the purpose of special education emphasizes the importance of transition education.

Currently, IDEA (2004) mandates the transition planning process to begin at the age of 16 and

continue through high school graduation; however, many states across the country require

transition planning to start sooner (Suk, Martin, McConnell, & Biles, 2019). Transition planning

involves developing a coordinated approach to help students attain postsecondary goals

including annual goals and transition services. The cornerstone to transition planning is the use

of transition assessments to identify students' needs, strengths, preferences, and interests

associated with their postsecondary aspirations (Morningstar & Clavenna-Deane, 2018; Pulos &

Martin, 2018).

Transition Assessments

With IDEA's (2004) reauthorization, the law mandates the use of transition assessments

for all students with disabilities. Specifically, transition assessments help to identify students'

needs, strengths, preferences, and interests. As part of the transition planning process, the

utilization of transition assessments is an ongoing, annual process of collecting information to

support the postsecondary goals of students with disabilities (Neubert & Leconte, 2013).

Therefore, transition assessments have a simple rationale—to identify students' aspirations for

the future and to assess the necessary skills and knowledge students have or will need to learn to

reach those aspirations (Test, 2012). Transition assessments inform the Individualized Education Program (IEP), which procures student-level information relative to their needs, strengths, preferences, and interests to develop annual goals (i.e., both academic and non-academic) to help facilitate the attainment of students' postsecondary goals. In addition, transition assessments provide a means for the IEP team to understand where the student is and where the student wants to be as a future learner, worker, and community member.

Within IDEA (2004), the phrase "transition assessment" refers to the use of two or more transition assessments employed annually (Martin & McConnell, 2017). Annually assessing the postsecondary interests of students with disabilities is important as these students may change their preferences as they mature through middle and high school. A number of transition assessments exist to assess the skills identified in IDEA's (2004) transition domains— postsecondary education, adult services, employment, independent living, and community participation (Morningstar & Clavenna-Deane, 2018). These assessments vary in the method in how they assess individuals (e.g., interviews, questionnaires, interest surveys, skills assessments) and who assesses the individual (e.g., self-administered, parent, teacher). However, the main difference amongst the transition assessments resides across two arrangements: informal and formal assessments (National Technical Assistance Center on Transition [NTACT], 2016; Morningstar & Clavenna-Deane, 2018; Neubert & Leconte, 2013). Formal transition assessments are standardized instruments for measuring a variety of items and typically include descriptions of administration procedures, norming processes, recommended uses, reliability, and validity. Informal transition assessments lack basic norming processes, reliability, and validity information, therefore, the information gleaned about the student may be inaccurate (NTACT, 2016; Neubert & Leconte, 2013; Pulos & Martin, 2018).

Availability and Quality of Transition Assessments

Despite the availability of transition assessments, for free or purchase, many educators fail to choose valid and reliable transition assessments for transition planning (Prince, Plotner, & Yell, 2014). Prince et al. (2014) reviewed court cases across the country relative to the postsecondary transition planning for students with disabilities and recommended the IEP team (a) use transition assessments that assess across domains (i.e., education/training, employment, and independent living), (b) use at least one formal assessment with reliability and ample validity evidence, and (c) maximize the participation of students with disabilities in the transition planning process. In addition to Prince et al.'s (2014) recommendations, many experts in the field of special education, specifically secondary transition, recommend using a combination of formal and informal transition assessments to accurately assess student strengths, limitations, and interests (Martin & McConnell, 2017; McConnell, 2012; Sitlington, Neubert, Begun, Lombard, & Leconte, 2007).

Students with a Significant Cognitive Disability

Originating before the age of 18, students with a significant cognitive disability demonstrate substantial limitations in intellectual functioning and adaptive behaviors (American Association on Intellectual and Developmental Disabilities [AAIDD], 2019a), which covers a variety of domains including everyday communication, daily living, employment, and social skills (Kurth, Gross, Lovinger, & Catalano, 2012). To educate students with a significant cognitive disability, IDEA (2004) and best practice (Agran, Wehmeyer, Cavin, & Palmer, 2010) suggest these students be instructed with high expectations to nurture their development relative to the nation's four policy goals: (a) equality of opportunity, (b) full participation, (c) independent living, and (d) economic self-sufficiency (AAIDD, 2019b). For this to take place,

annual and postsecondary transition goals highlighting the needs above should be noted within

the IEP; however, marginalizing ideologies about students with a significant cognitive disability

persist, potentially preventing them from achieving their postsecondary aspirations. For example,

Grigal, Hart, and Migliore (2011) conducted a systematic review of the National Longitudinal

Transition Study-2, comparing students with a significant cognitive disability to other students

with disabilities. They found students with a significant cognitive disability were less likely to

have postsecondary education or competitive employment goals on their IEP. In addition, these

students were more likely to have sheltered and supported employment goals in their IEP as

compared to other students with disabilities.

A need exists for students with a significant cognitive disability to engage in the planning

of their postsecondary future, have increased opportunities to access novel education and

employment environments prior to graduation, and access to a variety of agencies to promote

continuing and lasting linkages and support in their community (AAIDD, 2019b; Getzel &

deFur, 1997). However, students with a significant cognitive disability may not know what

opportunities exist in their communities, and their teachers may not know the interests of their

students to afford them the intentional targeted instruction required to cultivate positive

postsecondary outcomes. To gather this information, transition assessments serve as the

foundation and driving force "to identify measurable postsecondary goals and determine

necessary transition services to pursue such goals during the secondary school years" (Neubert &

Leconte, 2013, p.72).

Transition Assessments for Students with a Significant Cognitive Disability

Students with a significant cognitive disability may require assistive technology to access

and engage in transition assessments. However, the field of secondary transition, does not

currently have large-scale data in relation to students with a significant cognitive disability and

their access requirements to transition assessments. A large majority of transition assessments

are now available through online formats. According to Wang, Jiao, Young, Brooks, and Olson

(2008), in recent years there has been a shift from paper and pencil assessments to computerized

assessments. Computerized assessments allow for more flexibility in testing accommodations,

which affords increased student engagement and more accurate assessment of students'

knowledge (Scheuermann & Björnsson, 2009). As students with a significant cognitive disability

do not represent "a single IDEA [2004] disability category" (Kleinert et al., 2015); rather, a

conglomerate of disabilities (e.g., intellectual disability, autism spectrum disorder, multiple

disabilities, deaf-blindness; Cameto et al., 2010; Kearns, Towles-Reeves, Kleinert, Kleinert, &

Thomas, 2011; Kleinert et al., 2015), the current literature-base does not provide a clear picture

of what teachers are currently using to assist students with a significant cognitive disability in

accessing transition assessments or what these students may need to access computerized

assessments.

The value of the assessments to the transition planning process regardless of the

arrangement they belong to, formal or informal, resides in information generated from them.

Therefore, individually choosing specific transition assessments to meet the needs of students

with disabilities is vital, particularly for students with a significant cognitive disability. While

informal transition assessments are potentially useful and provide information to IEP teams, the

need for formal assessments resides in case law and best practice to ensure assessments are

measuring the appropriate skills of these students. Although an array of formal transition

assessments exist, many are not designed nor validated for students with a significant cognitive

disability. This raises an important question: What transition assessments are teachers using for these students for transition planning when such limited choices are available?

Purpose and Research Questions

Across the nation, 52% of states and territories recognize the intense educational needs of students with a significant cognitive disability by broadening the transition-age to include students as young as 13 and as old as 26 (Suk et al., 2019). When considering students with a significant cognitive disability, transition assessments remain elusive, with limited choices in availability, quality (i.e., formal and informal), and accessibility (Martin & McConnell, 2017; Pulos & Martin, 2018). Morningstar and Pearson (2008) identified transition assessments utilized for students with a significant cognitive disability (a) are not developed for these students and the many attributes they possess, (b) lack critical validity and reliability evidence, (c) do not produce results which are easily converted into plans and goals, and (d) do not allow for results to be easily copied into IEP documents.

Without a variety of transition assessments to choose from for students with a significant cognitive disability, the process in which IEP teams evaluate, interpret, and plan future transition activities is in stark contrast to the simple rationale previously stated. The skills identified in transition assessments for these students should come from formal and informal assessments to provide a bridge of instruction on research- and evidence-based practices to promote the likelihood of positive postsecondary outcomes (Odom et al., 2005; Test et al., 2009). Utilizing transition assessments to establish this connection amplifies the impact for all involved—educational stakeholders, parents, and, especially, students with a significant cognitive disability.

The purpose of the present study was to (a) provide a national picture of the current state of the transition assessment process utilized for students with a significant cognitive disability as

currently administered by a variety of educational stakeholders, including special education

teachers, district transition program teachers, and other school professionals and (b) explore what

is needed to create a transition assessment to fit the unique needs of students with a significant

cognitive disability and prepare them for the future. Specifically, we addressed the following

research questions:

1. What transition assessments are educators using to assess the needs of students with a

    significant cognitive disability?

2. How are students with a significant cognitive disability currently accessing transition

    assessments in schools, and what might they need to better afford them access to

    transition assessments?

Method

This exploratory survey sought to determine which transition assessments educational

stakeholders were using and what they needed to appropriately assess transition skills of students

with a significant cognitive disability. Prior to recruitment and data collection, the southwest

university's (i.e., where this research took place) office of Human Research Participant

Protection Institutional Review Board approved all research logistics.

Participants

An online survey was distributed to middle and high school special education teachers,

district transition program teachers, and school professionals across the United States. A total of

1,530 responses were collected. Of those, 1,186 respondents consented to participate in the

survey. After consent, 938 met the survey's inclusion criteria (i.e., taught or had taught students

with a significant cognitive disability) and completed the survey.

Recruitment

Participants were recruited by email: (a) utilizing two listservs housed in a southwest university's database of active account users across the United States and (b) snowball sampling, where individuals completing the survey through an anonymous link forwarded the link to other participants or contacts. Inclusion criteria for participants included persons over the age of 18 who indicated having taught previously or currently teaching students with a significant cognitive disability. Individuals who indicated not teaching or not having taught this population of students were exited from the survey and not counted as a respondent. Participants contacted through email received up to four emails over a two-month time frame.

Instrumentation

We used a researcher-developed survey instrument. The survey was developed and disseminated through Qualtrics© software, an online survey program. Based on our knowledge of current transition assessments, researcher knowledge of students with a significant cognitive disability, and the extant literature related to assessing students with a significant cognitive disability (e.g., Bowen & Rude, 2006; Kellems & Morningstar, 2010; Neubert, 2003; Pulos & Martin, 2018; Shogren & Plotner, 2012), survey questions were developed to provide inclusive choices and opportunities for specific individual input. We utilized an iterative approach when revising and editing the questions before vetting survey questions with two experts in the field of secondary transition, specifically in assessing transition skills of students with a significant cognitive disability. After recommendations were made and changes to the survey were completed, the survey was disseminated to the designated audience of special education personnel. A few ways the researchers addressed threats to validity were (a) obtaining feedback from experts in the field to ensure the appropriateness of the survey questions, (b) using

inclusion criteria to determine participants, and (c) not changing the survey after it was first disseminated to participants (Martella, Nelson, Morgan, & Marchand-Martella, 2013).

The survey consisted of 10 varying response questions, which included multiple choice, fill in the blank, open response, and yes/no questions. All survey responses were stored in a password-protected system and de-identified in an Excel spreadsheet, individually capturing each respondent's answers. The final survey consisted of four sections: (a) consent (two questions), (b) demographics (two questions), (c) assessing transition skills (three questions), and (d) accessibility of transition assessments (three questions). When participants opened the survey link, they were first asked to answer three questions which allowed them to access the entire survey. First, participants gave their consent to participate. Next, they were asked if they taught or were currently teaching students with a significant cognitive disability. If they answered no, they were exited from the survey. Following consent, two questions gathered demographic information about the students the participants taught, including age range of students and their disability categories.

Three questions focused on the differing types of transition assessments and included questions about assessing the transition skills of students with a significant cognitive disability. Participants chose multiple-choice answers to report which transition assessments they used with these students. Researchers chose ten commonly used transition assessments as indicated in a list of assessments used for students with significant cognitive disabilities with a 6:4 ratio of formal and informal assessments (Pulos & Martin, 2018). In addition, an open-response format was available for survey participants to fill in other transition assessments they used when assessing their students with a significant cognitive disability. Next, we asked the participants what they needed to feel confident in giving a transition assessment (i.e., professional development, time to

read provided manual, instructions given via video/webinar, co-worker support, and website

support). This was followed by a yes/no question: "Do you feel the assessments you currently

use provide a well-rounded, accurate description of your students?"

We designated three questions to address the accessibility of transition assessments.

These questions sought to gain information about the use of assistive technology by students

with a significant cognitive disability and the type of assistance these students would need to

participate in a computerized transition assessment. The first accessibility question asked what

types of technology students were able to access on a daily basis within their school

environment. The participants chose from a list of four items and could choose more than one

(i.e., computer lab, laptops, tablets, and Internet). The second question allowed for a yes or no

response only and asked whether their students with a significant cognitive disability would need

assistive technology to access a computerized assessment. The final question inquired about the

type of assistive technology used by these students; this required respondents to choose from a

menu of items, which allowed multiple choices and the option to input their own response if

items were not listed (e.g., sip and puff, touch screen, eye gaze).

It is important to note, not all participants responded to each question as the only forced

responses were related to consent. Additionally, some survey questions requested respondents to

"check all that apply." Thus, numbers did not total to 938 (i.e., total respondents) due to

checking all that apply for certain questions. We provided the number of survey respondents for

each primary finding per each section of the survey in the following results section.

Results

Demographics

Participants identified the age of students with a significant cognitive disability they

served. This included middle school students (37.3%, $n = 350$), high school students (77.8%, $n =$

730), and district transition program students (i.e., 18-22 years of age; 57%, $n = 535$). Finally,

participants indicated working with students identified as having autism spectrum disorder

(91.4%, $n = 857$) or an intellectual disability (90.5%, $n = 849$) as the largest population of

students they served. For a complete list of results, please refer to Table 1.

Assessing Transition Skills

To assess the needs, strengths, preferences, and interests of their students with a

significant cognitive disability, participants responded they used a variety of transition

assessments. Respondents reported the *Brigance* (47%, $n = 441$; Curriculum Associates, Inc.,

2010) as the highest ranked transition assessment utilized for these students. In addition,

respondents indicated using the *Personal Preference Indicators* (40%, $n = 375$; Moss, 1997b)

"other" transition assessments (38.4%, $n = 360$), *Picture Interest Career Survey* (21.2%, $n = 199$;

Brady, 2011), *Reading-Free Vocational Interest Inventory: 2* (20.4%, $n = 191$; Becker, 2000),

Employment Support Indicators (15.7%, $n = 147$; Moss, 1997a), *Enderle-Severson Transition*

Rating Scale (15%, $n = 141$; Severson, Enderle, & Hoover, 2006), *Adaptive Behavior Assessment*

System II (14.5%, $n = 136$; Harrison & Oakland, 2015), *Transition Planning Inventory II* (13.3%,

$n = 125$; Patton & Clark, 2014), *Supports Intensity Scale* (8.5%, $n = 80$; Thompson et al., 2014),

and *Autism Spectrum Rating Scales* (2.2%, $n = 21$; Goldstein & Naglieri, 2010). A large

percentage (38.4%, $n = 360$) of respondents indicated the use of "other" transition assessments.

Furthermore, respondents indicated what they needed to feel confident in administering

transition assessments. Participants reported professional development (65%, $n = 617$) and time

to read the provided manual (64.1%, $n = 601$) as the two highest items needed to feel confident

relative to administering transition assessments. These supports were followed by co-worker

support (60.2%, *n* = 565), website support (54.2%, *n* = 508), and instructions given via

video/webinar (44.7%, *n* = 419). This was followed up with the question, "Do you feel the

assessments you currently use provide a well-rounded, accurate description of your students?" A

large number of respondents (72.7%, *n* = 682) revealed they did not feel the transition

assessments they currently used provided a well-rounded, accurate description of their students

with a significant cognitive disability, while 27.3% (*n* = 256) responded favorably the transition

assessments they currently used provided a well-rounded, accurate description of their students

with a significant cognitive disability.

Accessibility of Transition Assessments

When given the opportunity to select all types of access options, participants reported

access to the Internet (94.3%, *n* = 855) and access to computer labs (72.9%, *n* = 684) as the

options most available for students. In addition, participants reported students had access to

laptops (68.4%, *n* = 642) and tablets (67.9%, *n* = 637). Furthermore, the majority of participants

responded at least one of their students with a significant cognitive disability would need

assistive technology to access a computerized assessment (77.8%, *n* = 730), while 22.2% (*n* =

208) reported their students would not need assistive technology. Participants also reported on

what forms of assistive technology their students with a significant cognitive disability currently

utilized in their school environments. Participants were provided 11 choices: tablets (69.9%, *n* =

656), communication device (61.1%, *n* = 573), laptops (61%, *n* = 572), software program (e.g.,

text-to-speech; 53.3%, *n* = 500), computer lab (52.7%, *n* = 494), touch screens (49%, *n* = 460),

specialized mouse/keyboard (28.8%, *n* = 270), joystick/wands/switches (22.9%, *n* = 215), eye

gaze devices (22.8%, *n* = 214), other (6%, *n* = 56), and sip and puff switch (2.3%, *n* = 22).

Twenty-two participants provided additional personalized responses for forms of assistive technology currently used by their students with a significant cognitive disability. These answers were divided between low-tech and high-tech assistive technology. The most popular low-tech assistive technology form respondents noted was the use of pictures ($n = 6$). Respondents also noted objects, communication boards, visual supports, overlays, stamps, and enlarged material as forms of low-tech assistive technology. Respondents noted captioning ($n = 6$), APEX (i.e., technology assistance for individuals with vision impairments; $n = 4$), Picture Exchange Communication System ($n = 2$), telephones ($n = 2$), and sound amplifiers ($n = 2$) as forms of high-tech assistive technology utilized by their students with a significant cognitive disability. Other responses included the use of a light box, Dragon Dictation®, SMART Board©, digital textbooks, and recorders.

Discussion

The purpose of this study was to investigate the nationwide transition assessment process for students with a significant cognitive disability. Data were analyzed based on a multistate survey focusing on educators who work with students with a significant cognitive disability relative to the transition assessment process in the areas of (a) assessing transition skills and (b) accessibility of transition assessments. Results suggested transition assessments are not fully assessing the needs of this population, therefore denying equal participation and access to inclusive environments. In addition, results indicated a need for a more robust transition assessment for students with a significant cognitive disability. These results have important implications for practice, policy, and research.

Research Question 1: Assessing Transition Skills

With the 2004 reauthorization of IDEA and the introduction of transition assessment, there continues to be a call to action for the utilization of appropriate transition assessments when assessing the interests, needs, preferences, and strengths of students with a significant cognitive disability (Neubert & Leconte, 2013; Prince et al., 2014). However, with many state departments of education and local education agencies in the early stages of establishing policy and providing guidance on transition assessment (Morningstar & Liss, 2008), educators of students with a significant cognitive disability may employ transition assessments not appropriate for their students. Results of this study revealed 21.2% (*n* = 199) of respondents reported utilizing the *Picture Interest Career Survey* (Brady, 2011) for their students with a significant cognitive disability. Albeit this assessment has ample reliability and validly evidence to support its use, the intended population includes individuals with (a) limited familiarity with English, (b) a developmental disability or learning disability, (c) limited access to education, and (d) continually unemployed. Based on our understanding of students with a significant cognitive disability, this assessment may not be appropriate. Furthermore, the 36 sets of three pictures to choose from include a variety of pictures depicting a chemist, police officer, veterinarian, psychologist, pilot, doctor, and various other jobs requiring professional degrees and/or training.

Students with a significant cognitive disability demonstrate "significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practice adaptive skills" (AAIDD, 2019a). Although intellectual functioning and adaptive behavior of students with a significant cognitive disability can improve based on the supports in their environment, it seems unlikely they would possess the highly niche qualifications of the portrayed professions within the *Picture Interest Career Survey* (Brady, 2011). The *Picture Interest Career Survey* (Brady, 2011) may provide teachers and IEP teams, including the student,

with unrealistic goals to work toward; thus, potentially setting up their students with a significant

cognitive disability to fail. Prominent researchers in the field of secondary transition recommend

working toward realistic goals (e.g., Kellems & Morningstar, 2010; Peterson et al., 2013;

Sitlington, 2003)—this sets up both teacher and student for individualized instruction to attain

the necessary behaviors, skills, and agency linkages for success post-high school.

A promising finding from our results was the inclusion of utilizing the *Personal*

Preference Indicators (40%, $n = 375$; Moss, 1997b) to assess the transition needs of students

with a significant cognitive disability. Albeit informal, this assessment is used as a guide to

access information about a student's preferences in the areas of favorites, feelings, social world,

choices, body clock, health, and role in their family and community. Through a holistic

approach, transition educators and parents of students with a significant cognitive disability can

dialogue to help determine a baseline from which to begin planning for postsecondary success.

However, important to note, the *Personal Preference Indicators* (Moss, 1997b) is a paper and

pencil transition assessment filled out by third party individuals (i.e., teacher, parent). Teachers

should be cognizant of this when administering this assessment; by employing supports unique

to the needs of their students with a significant cognitive disability, student participation can take

place. Therefore, this transition assessment can provide a means for teachers of students with a

significant cognitive disability to incorporate meaningful participation in the IEP and transition

planning process, while also affording appropriate implementation of individualized transition

instruction to enhance the postsecondary success of these students (AAIDD, 2019b).

Research Question 2: Accessibility of Transition Assessments

Students with a significant cognitive disability often require multiple and various

accommodations to participate in learning. Accessibility information is pertinent for developers

of transition assessments to ensure the assessment platform meets the needs of this population of students. Advances in technology have afforded greater access, hence the shift from paper and pencil assessments to computerized assessments (Wang et al., 2008). A large majority of our respondents (77.8%, $n = 730$) noted their students with a significant cognitive disability needed adaptive technology to access a computerized transition assessment, including a variety of assistive technology devices at school: (a) tablets (69.9%, $n = 656$), (b) communication devices (61.1%, $n = 573$), (c) laptops (61%, $n = 572$), and (d) specialized software programs (53.3%, $n = 494$), etc.

The reported percentages are promising and demonstrate many students with a significant cognitive disability have access to or use computers regularly at school. Other devices noted by respondents included sip and puff, specialized mouse/keyboard, joysticks/wands/switches, eye gaze, and touch screen, which, although less common, still indicate a need for test developers to consider these devices for students with a cognitive disability to access transition assessments. This information indicates the demand for transition assessments to be compatible with a multitude of platforms (e.g., online, smart devices, tablets) and accommodate a variety of types of assistive technology to ensure the active participation of students with a significant cognitive disability in the transition planning process (AAIDD, 2019b).

Implications for Practice

Transition assessment is a critical component of the transition planning process and thus of the entire IEP. Without valid, reliable, appropriate transition assessments, educators are at a disadvantage to developing the transition plan. The transition plan should then drive the entire IEP. Without this necessary first step (i.e., transition assessment) in the IEP development, the remainder of the IEP has no option but to be less than ideal. Our results indicate a lack of formal

and informal transition assessments designed to provide access and assess the transition needs of

students with a significant cognitive disability.

We believe an appropriate transition assessment for this student population needs to (a)

provide technical data, including reliability and validity evidence for their use; (b) be accessible

to students with differing assistive technology needs and through different modalities; and (c)

allow for student input through a variety of means. As educators continue the use of transition

assessments which violate the aforementioned criteria, they should use caution when interpreting

results from these assessments. Important to note, while using caution is the first step, teachers

must acknowledge these assessments may not provide a well-rounded, holistic view of the

student's needs to best prepare them for postsecondary environments (Martin & McConnell,

2017; Pulos & Martin, 2018). Once educators are provided with transition assessments meeting

the above recommendations, educators can take the results and build an appropriate transition

plan. That transition plan will then translate into meaningful instruction in the classroom

environment to help students with a significant cognitive disability reach their full potential.

Implications for Policy

As foreseen in our data, the developing identification of the complexity of assessing

students with a significant cognitive disability relative to the transition planning process is

nuanced in the availability of assessments (i.e., informal and formal) and the means at which

those assessments are accessible for this population of students. With state departments of

education and local education agencies still grappling with establishing policy and providing

specifics on the implementation of transition assessment practices (Morningstar & Liss, 2008),

educators of students with a significant cognitive disability are utilizing transition assessments

not appropriate for these students. This reflects a need for policymakers at the state and federal

level to explicitly articulate directives about the appropriate use of transition assessment, as part

of a comprehensive secondary transition education, for students with a significant cognitive

disability. With this approach, the likelihood of discovering the strengths, needs, interests, and

preferences through reliable and valid methods increases; thus, promoting participation and

access to inclusive postsecondary environments. In addition, these policy directives can catalyze

secondary transition researchers to develop accessible formal transition assessments for students

with a significant cognitive disability. Without such efforts at the policy level, a disparity will

continue to exist for these students achieving their postsecondary aspirations.

Limitations and Implication for Future Research

While our survey results provide a nationwide snapshot of transition assessment practices

for students with a significant cognitive disability, there are a few limitations we must note. First,

we conducted an anonymous survey that did not allow us to obtain additional feedback or

clarification on responses from our participants. Future research should allow respondents to

provide personalized comments on the choices they select. In addition, researcher follow-up

could ensure accurate responses are portrayed and reported. Second, we did not include two

major self-determination assessments, including the *AIR Self-Determination Scale* (Wolman,

Campeau, Dubois, Mithaug, & Stolarski, 1994) and the *Arc's Self-Determination Scale*

(Wehmeyer, 1995), in the pre-populated transition assessment responses from which participants

could select. The researchers opted to include the *Personal Preference Indicators* (Moss, 1997b)

as a self-determination assessment for this population. The results produce a more robust

description of a student's behaviors in relation to self-determination and fosters "where to begin

planning in a considerate, appropriate and positive manner" (Moss, 1997b, p. 1). Participants

could type other assessments in the provided space, but some participants may have neglected to

complete this step of the survey. Therefore, by adding these two assessments for future research, a better understanding of the transition assessments used for students with a significant cognitive disability may occur. Third, we provided the *Brigance* (Curriculum Associates, Inc., 2010) as a pre-populated answer choice; however, we did not indicate the separate components of the plethora of *Brigance* (Curriculum Associates, Inc., 2010) assessments. Participants could be utilizing various forms of the *Brigance* (Curriculum Associates, Inc., 2010). Thus, if a transition assessment has multiple components, including the populations they are meant for and other specific information relative to administration would be important to include as future choices in a survey.

Conclusion

In conclusion, this study reveals students with a significant cognitive disability clearly need an accessible transition assessment that can assess their strengths, needs, interests, and preferences with reliability and validity evidence supporting its use as a transition planning tool. Educators need to have confidence they are building transition plans for the best possible outcomes for their students with a significant cognitive disability based on valid assessment results. Future research on this topic should include creating and validating transition assessments for students with a significant cognitive disability to best fit their unique and individualized needs and abilities, while seeking this information through a variety of modalities and technology to allow for student input.

References

Agran M., Wehmeyer, M., Cavin, M., & Palmer, S. (2010). Promoting active engagement in the

general education classroom and access to the general education curriculum for students

with cognitive disabilities. *Education and Training in Autism and Developmental

Disabilities, 45,* 163-174.

American Association on Intellectual and Developmental Disabilities (AAIDD). (2019a).

Definition of intellectual disability. Retrieved from https://aaidd.org/intellectual-

disability/definition

American Association on Intellectual and Developmental Disabilities. (2019b). *Joint position

statement of AAIDD and The Arc.* Retrieved from https://aaidd.org/news-

policy/policy/position-statements/education

Becker, R. L. (2000). *Reading-Free Vocational Interest Inventory: 2.* Columbus, OH: Elbern.

Brady, R. P. (2011). *Picture Interest Career Survey.* St. Paul, MN: JIST/EMC Publishing.

Bowen, S. K., & Rude, H. A. (2006). Assessment and students with disabilities: Issues and

challenges with educational reform. *Rural Special Education Quarterly, 25,* 24-30.

doi:10.1177/875687050602500304

Cameto, R., Bergland, F., Knokey, A. M., Nagle, K. M., Sanford, C., Kalb, S. C., . . . Ortega, M.

(2010). *Teacher perspectives of school-level implementation of alternate assessments for

students with significant cognitive disabilities: A report from the national study on

alternate assessments* (NCSER 2010-3007). Menlo Park, CA: SRI International.

Curriculum Associates, Inc. (2010). *Brigance.* North Billerica, MA: Author.

Getzel, E. E., & deFur, S. (1997). Transition planning for students with significant cognitive

    disabilities: Implications for student-centered planning. *Focus on Autism and*

    Developmental Disabilities, 12, 39-48. doi:10.1177/108835769701200105

Goldstein, S., & Naglieri, J. A. (2010). *Autism Spectrum Rating Scales.* North Tonawanda, NY:

    Multi-Health Systems, Inc.

Grigal, M., Hart, D., & Migliore, A. (2011). Comparing the transition planning, postsecondary

    education, and employment outcomes of students with intellectual and other disabilities.

    Career Development for Exceptional Individuals,34, 4-17.

    doi:10.1177/0885728811399091

Harrison, P., & Oakland, T. (2015). *Adaptive Behavior Assessment System: 2.* Torrance, CA:

    Western Psychological Services.

Individuals with Disabilities Education Act. (2004). Pub. L. 108-446, §1.

Kearns, J. F., Towles-Reeves, E., Kleinert, H. L., Kleinert, J. O., & Thomas, M. K. K. (2011).

    Characteristics of and implications for students participating in alternate assessments

    based on alternate academic achievement standards. *The Journal of Special Education,*

    45, 3-14. doi:10.1177/0022466909344223

Kellems, R. O., & Morningstar, M. E. (2010). Tips for transition. *TEACHING Exceptional*

    Children, 43, 60-68. doi:10.1177/004005991004300206

Kleinert, H., Towles-Reeves, E., Quenemoen, R., Thurlow, M., Fluegge, L., Weseman, L., &

    Kerbel, A. (2015). Where students with the most significant cognitive disabilities are

    taught: Implications for general education curriculum. *Exceptional Children, 81,* 312-

    328. doi:10.1177/0014402314563697

Kurth, J., Gross, M., Lovinger, S., & Catalano, T. (2012). Grading students with significant

    disabilities in inclusive settings: Teacher perspectives. *The Journal of International*

    Association of Special Education, 12, 41-57.

Martella, R. C., Nelson, J. R., Morgan, R. L., & Marchand-Martella, N. E. (2013).

    Understanding and interpreting educational research. New York, NY: The Guilford

    Press.

Martin, J. E., & McConnell, A. E. (2017). Transition planning. In M. L. Wehmeyer & K. A.

    Shogren (Eds.), *Handbook of research-based practices for educating students with*

    intellectual disability (pp. 151-166)*.* New York, NY: Routledge.

McConnell, A. E. (2012). *The relationships among academics, GPA, and the Transition*

    Assessment and Goal Generator (TAGG) in students with mild to moderate disabilities

    (Doctoral dissertation)*.* Retrieved from ProQuest Dissertations & Theses Global.

    (Accession No. 3506231)

Morningstar, M. E., & Clavenna-Deane, E. (2018). *Your complete guide to transition planning*

    and services. Baltimore, MA: Paul H. Brooks.

Morningstar, M. E., & Liss, J. M. (2008). A preliminary investigation of how states are

    responding to the TA requirements under IDEIA 2004. *Career Development for*

    Exceptional Individuals, 31, 48-55. doi:10.1177/0885728807373776

Morningstar, M. E., & Pearson, M. (2008, October). *Assessing students with significant*

    disabilities for supported adulthood: Exploring appropriate transition assessments. Paper

    session presented at the Division on Career Development and Transition International

    Conference, Milwaukee, WI.

Moss, J. (1997a). *Employment Support Indicators* (Rev. 2008). Oklahoma City, OK: Center for

> Learning and Leadership/UCEED, College of Medicine, University of Oklahoma Health

> Sciences Center.

Moss, J. (1997b). *Personal Preference Indicators* (Rev. 2006). Oklahoma City, OK: Center for

> Interdisciplinary Learning and Leadership/UCEED, College of Medicine, University of

> Oklahoma Health Sciences Center.

National Technical Assistance Center on Transition (NTACT). (2016). *Age appropriate*

> *transition assessment toolkit* (4th ed.). Charlotte, NC: Author.

Neubert, D. A. (2003). The role of assessment in the transition to adult life process for students

> with disabilities. *Exceptionality, 11,* 63-75. doi:10.1207/s15327035ex1102_2

Neubert, D. A., & Leconte, P. J. (2013). Age-appropriate transition assessment: The position of

> the division on career development and transition. *Career Development and Transition*

> *for Exceptional Individuals, 32,* 72-83. doi:10.1177/2165143413487768

Odom, S. L., Brantlinger, E., Gersten, R., Horner, R. H., Thompson, B., & Harris, K. R. (2005).

> Research in special education: Scientific methods and evidence-based practices.

> *Exceptional Children, 71,* 137-148. doi:10.1177/001440290507100201

Patton, J. R., & Clark, G. M. (2014). *Transition Planning Inventory, 2nd edition.* Austin, TX:

> PRO-ED.

Peterson, L. Y., Burden, J. P., Sedaghat, J. M., Gothberg, J. E., Kohler, P. D., & Coyle, J. L.

> (2013). Triangulated IEP transition goals: Developing relevant and genuine annual goals.

> *TEACHING Exceptional Children, 45,* 46-57. doi:10.1177/004005991304500606

Prince, A. M., Plotner, A. J., & Yell, M. J. (2014). Postsecondary transition and the courts: An

> update. *Journal of Disability Policy Studies, 25,* 41-47. doi:10.1177/1044207314530469

Pulos, J. M., & Martin, J. E. (2018). Transition assessment. In L. L. S. Brusnahan, R. A. Stodden, & S. H. Zucker (Eds.), *Tackling transition: Work, community, and educational success* (pp.19-34)*.* Arlington, VA: Council for Exceptional Children.

Scheuermann, F., & Björnsson, J. (Eds.). (2009). *The transition to computer-based assessment: New approaches to skills assessment and implications for large-scale testing.* Ispra (VA), Italy: European Communities.

Severson, S., Enderle, J., & Hoover, J. (2006). *Enderle-Severson Transition Rating Scale-S.* Columbus, OH: ESTR.

Shogren, K. A., & Plotner, A. J. (2012). Transition planning for students with intellectual disability, autism, or other disabilities: Data from the National Longitudinal Transition Study-2. *Intellectual and Developmental Disabilities, 50,* 16-30. doi:10.1352/1934-9556-50.1.16

Sitlington, P. L. (2003). Postsecondary education: The other transition. *Exceptionality, 11,* 103-113. doi:10.1207/s15327035ex1102_05

Sitlington, P. L., Neubert, D. A., Begun, W. H., Lombard, R. C., & Leconte, P. J. (2007). *Assess for success: A practitioner's handbook on transition assessment* (2nd ed.)*.* Thousand Oaks, CA: Corwin.

Suk, A. L., Martin, J. E., McConnell, A. E., & Biles, T. (2019). *States decrease the age when secondary transition planning must begin.* Manuscript submitted for publication.

Test, D. W. (2012). *Evidence-based instructional strategies for transition.* Baltimore, MD: Brookes.

Test, D. W., Fowler, C. H., Richter, S. M., White, J., Mazzotti, V., Walker, A. R., . . . Kortering,

    L. (2009). Evidence-based practices in secondary transition. *Career Development for*

    Exceptional Individuals, 32, 115-128. doi:10.1177/0885728809336859

Thompson, J. R., Bryant, B. L., Campbell, E. M., Craig, E. M., Hughes, C. M., Rotholz, D. A., . .

    . Wehmeyer, M. L. (2004). *Support Intensity Scale.* Washington, DC: American

    Association on Intellectual and Developmental Disabilities.

Wang, S., Jiao, H., Young, M. J., Brooks, T., & Olson, J. (2008). Comparability of computer-

    based and paper-and-pencil testing in K–12 reading assessments: A meta-analysis of

    testing mode effects. *Educational and Psychological Measurement*, *68,* 5-24.

    doi:10.1177/0013164407305592

Wehmeyer, M. L. (1995). *The Arc's Self-determination Scale: Procedural guidelines*.

    Washington, DC: The Arc of the United States.

Wolman, J., Campeau, P., Dubois, P., Mithaug, D., & Stolarski, V. (1994). *AIR self-*

    determination scale and user guide. Palo Alto, CA: American Institutes for Research.

Table 1

Special Educators Teaching Students with Significant Cognitive Disabilities (n = 938)

Question	n	%
Population Served		
Middle School	350	37.3
High School	730	77.8
District Transition Program (18-22 years of age)	535	57.0
Disability Categories Represented		
Autism Spectrum Disorder	857	91.4
Deaf-Blindness	140	14.9
Deafness	195	20.8
Emotional Disturbance	577	61.5
Hearing Impairment	344	36.7
Intellectual Disabilities	849	90.5
Multiple Disabilities	697	74.3
*Orthopedic Impairment	0	0
Other Health Impairment	726	77.4
Specific Learning Disability	574	62.2
Speech or Language Impairment	614	65.5
Traumatic Brain Injury	432	46.1
Visual Impairment Including Blindness	398	42.4
Transition Assessments Used		
ABAS II	136	14.5

ASRS	21	2.2
Brigance	441	47.0
Employment Support Indicators	147	15.7
ESTR-S	141	15.0
Personal Preference Indicators	375	40.0
PICS	199	21.2
R-FVII: 2 Reading-Free Vocational Interest Inventory	191	20.4
Supports Intensity Scale	80	8.5
TPI II	125	13.3
Transition Assessment Preparation		
Co-Worker Support	565	60.2
Instructions Given Via Video/Webinar	419	44.7
Professional Development	617	65.0
Time to Read Provided Manual	601	64.1
Website Support	508	54.2

Transition Assessments Used Provide a Well-Rounded and Accurate Description of Your Students

Yes	256	27.3
No	682	72.7

Access to the Following at School

Computer Lab	684	72.9
Internet	855	94.3
Laptops	642	68.4
Tablets	637	67.9

The Need for Assistive Technology to Access a Computerized Assessment

Yes	730	77.8
No	208	22.2

Forms of Assistive Technology Used at School

Communication Device	573	61.1
Computer Lab	494	52.7
Eye Gaze	214	22.8
Joystick/Wands/Switches	215	22.9
Laptops	572	61.0
Sip and Puff	22	2.3
Software Program	500	53.3
Specialized Mouse/Keyboard	270	28.8
Tablets	656	69.9
Touch Screen	460	49.0
Other	56	6.0

Note. Not all participants responded to each question as the only forced responses were related to consent. Additionally, some survey questions requested respondents to "check all that apply." Thus, numbers did not total to 938 (i.e., total respondents) due to checking all that apply..
*Orthopedic impairment was left out due to not meeting the inclusion criteria of the survey.