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Universal Design for Transition: A Conceptual Framework for Blending Academics and Transition Instruction

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This theoretical paper comprised the development of a conceptual framework for blending academic and transition content to help members of the special education field meet both the academic and transition needs of students with disabilities, including students with intellectual and developmental disabilities (IDD). The current conceptual framework was used to explain how the components from Universal Design for Learning (UDL) and transition are blended to create the Universal Design for Transition (UDT) framework, which is a guide for implementing and promoting barrier-free transitions. In the current study, the final conceptual framework included multiple components that use the following UDL academic principles: (a) multiple means of representation, (b) multiple means of expression, and (c) multiple means of engagement. The UDL concept of barrier-free learning was combined with the transition-based principles of: (a) multiple life domains, (b) multiple means of assessment, (c) self-determination, and (d) multiple resources and perspectives, to form the UDT conceptual framework. Implications and planning for future research regarding the UDT framework are discussed.

Keywords: UDL, transition, universal design, UDT

The National Goals in Research, Practice, and Policy 2015 conference was held in the United States for the purpose of summarizing the current state of knowledge, and to develop research goals to influence policy and practice positively for individuals with disabilities by the year 2025 (Hewitt, Heller, & Butterworth, 2015). The goal of the conference leaders was to coordinate a team of researchers, practitioners, advocates, family members, policymakers, individuals with intellectual

and developmental disability (IDD), and other stakeholders (Hewitt et al., 2015). Further, at the Education Strand of the National Goals conference, members reviewed several topics and themes used to shape goals to help inform research and meet the challenges faced by individuals with disabilities, particularly individuals with intellectual and developmental disabilities (IDD) who are within K-12 school environments (Thoma, Cain, & Walther-Thomas, 2015). Of the many research goals

identified, the education group members noted a need to evaluate specific applications of the universal design for learning (UDL) framework, including research strategies that can be used to provide students with IDD access to academics based in the general curriculum, while meeting their transition needs (Thoma et al., 2015). The purpose of the current paper is to advance the goals of the Education Strand of the National Goals conference members by describing a conceptual framework using UDL to support the blending of academic and transition goals to meet the needs of students with disabilities, including students with IDD. The current paper is used to explain the development of the conceptual framework further, including policies used to promote academic and transition skills, and literature on evidence-based transition practices and research. The conceptual framework is introduced and described, providing research-based evidence and practical implementation regarding each component of UDL. Finally, implications for future research and practice are discussed.

Policy Promoting Academics and Transition Goals

Access to the general curriculum for students with disabilities developed significance after the passage of the 1997 amendments to the Individuals with Disabilities Education Act (IDEA), which were anticipated to improve the outcomes for students with disabilities by providing them access to the same curriculum used for students without disabilities (Agran, Alper, & Wehmeyer, 2002). Later, the No Child Left Behind (NCLB) Act of 2001 (PL 107-110) was passed into law and was used to raise academic expectations for all students, including students with disabilities (NCLB, 2001). Overall, the passages of IDEA

amendments in 1997 and NCLB in 2001 were used to introduce a shift in education so students with disabilities could be included in the general curriculum (IDEA, 1997; NCLB, 2001). Furthermore, the 2004 Individuals with Disabilities Improvement Act, which reauthorized IDEA (and became known as IDEA 2004), was used to emphasize the mandate of access to the general education curriculum, and recognized the need to improve the functional and transitional results for students with disabilities (IDEA, 2004). Generally, IDEA 2004 meant that the educational support for students with disabilities should include access to increased academic standards, while simultaneously planning for their transition through school to meet adult and life results, including postsecondary or vocational education, employment, independent living, and/or community participation (IDEA, 2004).

The Every Student Succeeds Act

In 2015, the United States lawmakers passed the Every Student Succeeds Act (ESSA), which was used to extend the rigorous focus on academics that is grounded in the general curriculum for students with disabilities (ESSA, 2015). Additionally, the ESSA education policy was used to encourage the application of the UDL framework in teaching and assessment planning for students with disabilities, including students with IDD (ESSA, 2015). The emphasis of ESSA on the use of UDL means that federal education lawmakers are seemingly endorsing UDL as a valid framework that K-12 school leaders should use to provide students with disabilities greater access to the general curriculum (CAST, 2011). While endorsement by ESSA of UDL was used to offer a strategy for teachers to use to provide students with

disabilities access to the general curriculum content, instruction designed to meet the transition outcomes from IDEA 2004 remained. The two ostensibly contrasting policies of ESSA and IDEA 2004 indicated that teachers needed to teach academic and transitional goals separately or, more reasonably, that teachers plan ways to blend academic and transition content to meet the needs of students with disabilities.

Literature on Blending Academic and Transition Goals

Blending academic and transition goals is a concept associated primarily with policy used to promote academics and career readiness, like the School to Work Opportunities Act of 1994 (PL 103-239), involving reform to address the dualism between academic and vocational training (Crowson, Wong, & Aypay, 2000). The School to Work Act was developed to promote the connection of academic content to workplace skills to engage student interests and increase academic achievement at the high school level. School to Work Act was used to increase enrollment in postsecondary institutions and increase the likelihood for competitive employment. The movement toward pursuing more rigorous academic standards for all students, including students with disabilities, and connecting school to work was a central premise of the effort during 1993 (Crowson et al., 2000). However, a shift in support occurred in school-to-career models and vocational education in many states because school leaders were pressured to consider additional adult options for students, including preparing students with disabilities for college (Kollars, 2002). Thus, the standards-based education movement became a means for aligning transition and academic instruction (Bassett & Kochhar-Bryant, 2006).

Since the late 1970's, standards-based education reform has occurred in education; however, it is a newer concept in the special education field (Browder et al., 2012). In special education, standards-based reformers aided in shifting focus to college and career readiness for students with disabilities by aligning special education programs and policies (such as IDEA 2004) with other education policies, such as NCLB and ESSA (Bartholomew, Papay, McConnell, & Cease-Cook, 2015). Based on the reform, a variety of literature examining teaching academics and transition skills together emerged (Bassett & Kochhar-Bryant, 2006; Falkenstine, Collins, Schuster, & Kleinert, 2009; Konrad, Trela, & Test, 2006; Konrad, Walker, Fowler, Test, & Wood, 2008). However, research has been limited in providing a model for teachers to utilize to blend academic and transition goals.

In a conceptual study, Konrad et al. (2008) highlighted the importance of self-determination for students with disabilities by developing a model to help teachers incorporate self-determination skills into the general curriculum. The researchers discussed evidence that supported the concept that teachers should teach self-determination and academic skills simultaneously; however, Konrad et al. (2008) noted that teachers faced barriers (e.g., limited time, limited resources), despite the importance of blending self-determination and academics. Based on the model by Konrad et al. (2008), the researchers described several steps that practitioners could follow to integrate self-determination and academics. Konrad et al. (2008) provided the following steps: (a) decide what academic content standards to teach; (b) decide how to teach using effective evidence-based strategies,

including evidence-based strategies for promoting self-determination; and (c) ongoing evaluation and adjustments of student outcomes to confirm anticipated goals of linking self-determination and academic content are met. Despite the worthy intentions of the Konrad et al. (2008) study, the model was limited to only self-determination. In a number of additional studies, researchers also evaluated blending self-determination strategies with academic goals (Korinek & deFur, 2016; Papay, Unger, Williams-Diehm, & Mitchell, 2015; Rowe, Mazzotti, & Sinclair, 2015) and showed positive effects that self-determination had on student academic and functional outcomes.

In another study, by Bartholomew et al. (2015), case-based scenarios were used to describe a model for embedding secondary transition goals in common state standards. Bartholomew et al. (2015) described cases where two teachers delivered instruction that blended relevant secondary transition goals with common core state standards. Two methods for teaching academic and transition goals emerged. The methods were centered on identifying the common core standard and finding a relevant transition goal, or initially starting with the transition goal and extending the lesson by linking a relevant academic standard (Bartholomew et al. 2015). Similarly, Rammler and Ouimette (2016) described a process for linking common core standards and transition skills. The steps included: (a) identifying transition standard for instruction, (b) planning a timeline for meeting specified goals, (c) selecting the evidence-based instructional strategy, and (d) evaluating and adjusting strategies and/or student's goals.

The linking of academic and transition goals can lead to positive academic and functional/transition outcomes for students with disabilities (Scott et al., 2011). For example, in a study, Collins, Terrell, and Test (2017) investigated students with IDD caring for plants as integrated into state science standards, and they found that the students mastered the content standard. Likewise, in another study, Root, Saunders, Spooner, and Brosh (2017) evaluated three students with IDD regarding the effectiveness of solving math problems related to purchasing and personal finances as a means to increase independence. The results indicated students' abilities to solve personal finance problems could generalize to other functional settings (Root et al., 2017). Despite the positive effects, neither study by Collins et al. (2017) or Root et al. (2017) described a model that can be used to blend academic and transition content that teachers can follow and generalize to other content or students.

Consequently, although some researchers have described strategies for linking academic and transition goals (Bartholomew et al., 2015; Rammler & Ouimette, 2016), and researchers supported the potential positive effects (Collins et al., 2017; Root et al., 2017; Scott et al., 2011), the lack of professional literature providing teachers with a comprehensive model to blend academic and transition content exists. Before teachers can succeed in supporting students with disabilities and avoid seeing blending academics and transition content as separate, a comprehensive conceptual framework providing them with a guide to blend the two seemingly disparate goals is needed. Therefore, the focus of the current article is to present a conceptual framework

to support the blending of academic and transition goals to meet the needs of students with disabilities.

Implementation of the UDT Framework for Practitioners

While teachers experience challenges to meet the diverse needs of learners and academic instruction with transition skills, the UDT framework exists to support educators in effectively addressing both needs. Similar to the UDL framework, the UDT framework is used to provide strategies to create learning opportunities addressing both academic instruction and transition skills. Teachers can use the framework to assess the learning goals, and identify ways to creatively connect the two concepts by identifying transition-based skills and academic instruction to seamlessly blend the lesson.

Conceptual Framework for Blending Academics and Transition Goals: Universal Design for Learning (UDL)

Universal design for learning (UDL) is based on the concept “universal design” that makes communities, buildings, and other spaces accessible to individuals, without the need for adaptation and specialized design (Center for Universal Design, 2008). Universal design is based on seven essential guidelines. The seven guidelines are: (a) equitable use, providing the same means for all users; (b) flexibility in use, providing multiple options; (c) simple and intuitive use, making it easy to understand; (d) perceptible information, the information is communicated effectively; (e) tolerance for error, hazards are minimized; (f) low physical effort, can be accessed by all regardless of physical ability; and (g) appropriate size and space

can accommodate all (Center for Excellence in Universal Design, 2014).

In 1990, Meyer and Rose developed the concept of UDL in an effort to allow students access to learning for all students, including individuals with the most significant disabilities. UDL includes the following three main principles: (a) multiple means of representation, (b) multiple means of expression, and (c) multiple means of engagement (CAST, 2011). Similar to universal design, UDL is further divided into nine guidelines as follows: (a) perception, (b) language and expression, (c) comprehension (representation), (d) physical action, (e) communication and expression, (f) executive functioning (expression), (g) recruiting interest, (h) sustaining effort and persistence, and (i) self-regulation (engagement) (National Center on Universal Design for Learning [NCUDL], 2014). The UDL concept was defined by developers of the Higher Education Act of 2008 as follows:

a scientifically valid framework for guiding educational practice that (a) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and (b) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient (National Center on Universal Design for Learning [NCUDL], 2014).

Officials at the NCUDL have focused on preparing instruction for students that contain flexible approaches in the methods, materials, and assessments (National

Center on Universal Design for Learning, 2014). Based on the three principles of multiple means of representation, expression, and engagement, using the UDL concept makes learning accessible for all students, promotes inclusion, and can meet the academic needs for all (CAST, 2011). For that purpose, the UDL principles are the foundational academic components of the current framework designed to blend academic and transition goals. Each UDL principle is described to provide further detail.

Multiple Means of Representation

Multiple means of representation refers to the various ways information can be provided to students of all abilities to help them comprehend academic content (National Center on Universal Design for Learning, 2014). The purpose for multiple means of representation is to reduce learning barriers by ensuring information is presented equally to all learners. According to officials at the Center for Applied Science Technology (CAST, 2011), multiple means of representation are comprised of three guidelines as follows: (a) options for perception; (b) options for language, mathematical expressions, and symbols; and (c) options for comprehension.

The options of perception include displaying information in alternative formats, and offering information using visual and auditory means as well (NCUDL, 2014). Examples could include providing guided notes used to support the lecture, visual supports and diagrams, and graphic organizers and/or auditory supports that coincide with the written materials (Thoma, Cain, Wojcik, Best & Scott, 2016). The options for language, mathematical expressions, and symbols indicate that the material be presented in such a way that alternative representations of the material

and meanings are clear for all learners (Thoma, Bartholomew, & Scott, 2009). Educators could present by ensuring the material is supported using multiple types of media (photos, videos, etc.), and providing supports for unknown content. The option for comprehension is used to ensure that students are learning usable information and the information is accessible. The delivery of information could include teaching background information to students prior to the material so they can easily make connections with the content, or scaffolding instruction to make sure the content is clear for all students (CAST, 2011). Based on multiple means of representation, students have opportunities for learning using a wide array of instructional techniques.

Multiple Means of Expression

Multiple means of expression refer to how students express what they know or have learned. Officials at CAST (2011) suggested three guidelines are used that allow students to be able to express themselves, and show what they have learned. The first guideline involves options for physical action, meaning that students should have options to get up and move or physically interact with how they want to express themselves, including writing with a pen/pencil and/or typing. Physical action could meet the needs of students with physical disabilities as well, by providing them opportunities to respond using assistive technologies, such as an adapted mouse or alternative keyboards (NCUDL, 2014).

The next choice involves options for expression and communication, and refers to students communicating in a variety of different ways, including writing, speaking, drawing, designing, and more, and not limiting students to any specific mediums

they choose (Thoma et al, 2009). Officials at CAST (2011) suggested that students have options for executive functions, which could include how students choose to express themselves, with examples such as setting an end goal, providing prompts and supports that give examples of expectations, and sharing in the planning, development, and monitoring of their final product. By allowing students to express themselves in variety ways, it would identify how they learned the material, and provide students opportunities to show what they really know.

Multiple Means of Engagement

Multiple means of engagement is the final principle of UDL, and is used to focus on the “why” of learning and can help motivate students (CAST, 2011). Multiple means of engagement can be used to provide options for self-regulation and increasing and maintaining student interest in a topic (NCUDL, 2014). It is important that students find a way to make the learning important for them individually, and to meet the goal, CAST (2011) leaders provided three guidelines. The first guideline is used to provide options for recruiting interests. While some students may be naturally interested in a topic, others tend to need more motivation. To provide options, student choice should be maximized and provide students with options to become engaged with the material by choosing activities for learning, and how they learn it (i.e. groups, individually, or with a partner) (Thoma et al., 2009). Additionally, educators need to ensure that the material is relevant and that enough background information is provided to capture student attention. Next, students must be provided options for sustaining effort and persistence, which includes enhancing student self-

determination to learn the material. Therefore, the focus should be on the end goals and objectives, encouraging collaboration, varying the demands that are put on the students, and providing feedback along the way (CAST, 2011). It is also important to provide options for self-regulation, which could include promoting self-assessment for students and facilitating personalized coping skills and strategies for each student to meet their own learning and motivational needs. When students are engaged in their work, their learning is more purposeful, and they are motivated to succeed (Thoma et al., 2016).

Universal Design for Transition

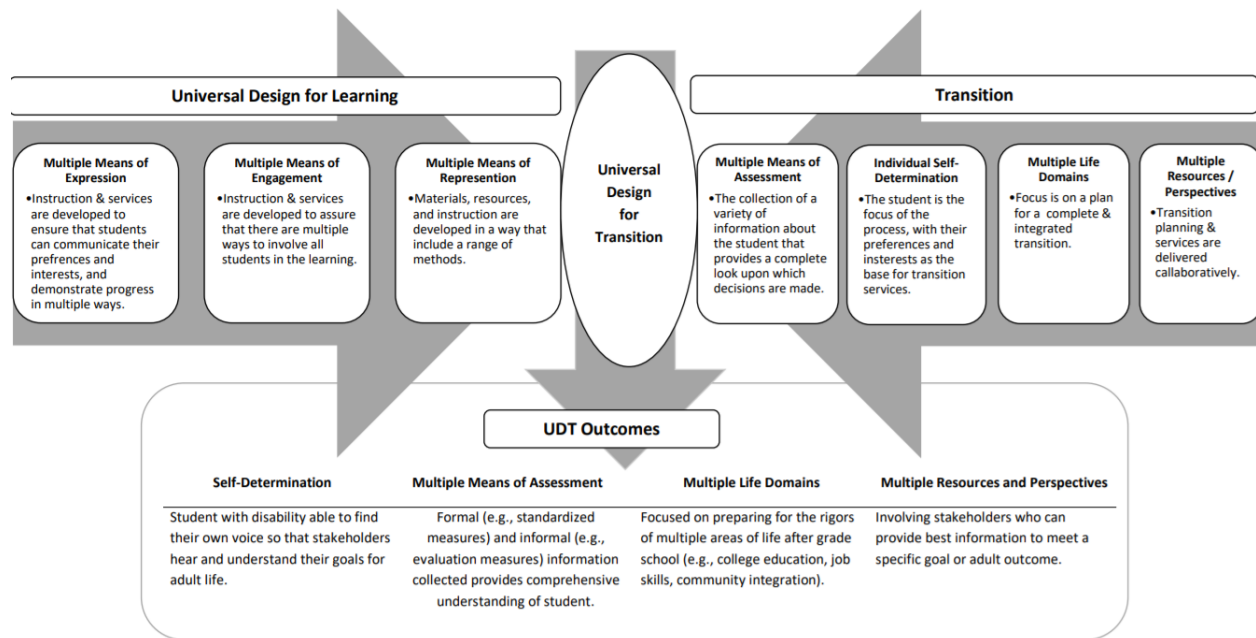
The described UDL concept and principles comprise the “academic” components of the current conceptual framework. The foundational UDL academic components are applied to additional principles (described below) to help meet the student’s transition goals. In concert with the UDL academic principles, additional transition-based principles are included in the current conceptual framework, which has been named Universal Design for Transition (UDT). The selected transition principles were chosen because they were identified as the best practices to support postschool outcomes in the areas of employment, postsecondary education, community participation, and independent living based on prior research and supported by policies as well (Best, Scott, & Thoma, 2015; Thoma et al., 2009).

Figure 1 shows the UDT conceptual framework that was developed based on the UDL principles and the additional transition-based principles. The UDT framework was based on the UDL framework, which has now been cited in legislation and has been a proven practice

to meet all students learning needs. The UDT framework is used to focus on preparing individuals with disabilities for life after school, while also providing them access to academic content helping special educators meet students' academic and transition goals (Best, Scott, & Thoma, 2015; Thoma et al., 2009). The use of UDT incorporated the three principles of UDL, while adding four additional transition-based principles of multiple life domains of

multiple means of assessment, individual self-determination, and multiple resources and perspectives (Thoma et al., 2009). The connection of academics and transition can be used to provide students with barrier-free opportunities after school and focus on creating a person-centered approach to meet all of individual student needs (Thoma et al., 2009). The additional four principles that construct the UDT framework are explained as follows.

Figure 1. Universal Design for Transition Conceptual Framework



Multiple Life Domains

Multiple life domains involve the focus on transition as a whole, rather than varying areas that may be disconnected. Instead of focusing on a narrow area of transition (career or postsecondary education), multiple life domains are used to prepare the student for a variety of transition outcomes, including postsecondary education, vocational education, employment, independent living, and/or community participation. Multiple life domains include integration of all of the areas to ensure a student's life is fulfilled in the workplace, at home, and in the community, and transportation and other leisure activities that are part of adult life. By planning for the transition activities, educators can ensure students are well prepared for their adult lives after school (Thoma et al., 2009). Students that communicate their goals for adult life may consider academic (e.g., postsecondary education) and/or functional lifestyle goals (e.g., self-determination, community living) that may also require supports from community providers, postsecondary leaders, K-12 academic teams, and other providers (Best, Scott, & Thoma, 2015).

Multiple Means of Assessment

Multiple means of assessment involve the use of a variety of materials and assessments (e.g., standardized assessments, formal assessments, informal assessments, alternative assessments) that are based on student needs and presents a holistic snapshot of the individual. According to Thoma et al. (2009), "transition assessment should include: identifying students interests and preferences; identifying the skills needed to accomplish their transition goals; identifying discrepancies between student abilities and skills identified; and using

information to identify supports, services, and instruction for individual students" (p. 13). An essential component of using multiple means of assessment involves the educator matching the general education curriculum to student transition-related goals and real world tasks (Thoma et al., 2009). For example, a student can learn financial skills, while simultaneously learning mathematical skills and assessing their skills across both areas. The integration of the two areas can allow student academic needs to be met, while also meeting student transition needs. The collection of evidence across a variety of skills and areas can be used to make important decisions for the students' transitions. The types of assessments that can be used could include formative and summative assessments, observations, interviews, checklists, portfolios, and other completed projects that reflect the student's mastery of skills (Thoma et al., 2009).

Individual Self-Determination

The individual self-determination component of the UDT framework involves the focus on the student at the center of planning and takes into account his/her preferences and interests when discussing transition. Self-determination is important for students to become independent. Self-determination is defined as "acting as the primary causal agent in one's life, free to make choices about one's life, and decisions about one's quality of life" (Wehmeyer, 1992, p. 13). Within the UDT framework, self-determination is used to allow students to make choices regarding their transition outcomes and can be based on the students' strengths, weaknesses, and preferences (Best et al., 2015). Self-determination has been known to promote greater transition outcomes for individuals

with disabilities, specifically when they are involved in their transition planning, especially in the areas of employment (Shogren et al., 2016; Wehmeyer & Palmer, 2003), postsecondary education (Getzel & Thoma, 2008; Stodden, Whelley, Chang, & Harding, 2001; Thoma & Getzel, 2005), and quality of life (Palmer, Wehmeyer, Shogren, Williams-Diehm, & Soukup, 2012; Wehmeyer & Schwartz, 1998). Therefore, it is important for teachers to teach self-determination skills to students and present students with opportunities to learn self-determination skills (Thoma et al., 2009).

Multiple Resources/Perspectives

The final component of the UDT framework involves multiple resources and perspectives, which includes collaborating with a variety of individuals in the school, community, and home to ensure all perspectives are considered when determining the types of support the individual has for transition. It is important to get a variety of perspectives outside of a student's immediate network to ensure the student is connected with the proper resources in the community and that individuals are provided opportunities to have all of their needs met (Hendricks & Wehman, 2009; Turnbull, 1996). Multiple perspectives from varying providers and supporters can also bring new ideas to the table to allow the student needs to be met best. For example, educators could collaborate with multiple stakeholders (e.g., required participants for a student's transition Individualized Education Program meeting, mentors, and community teams). The information can be used to provide input in both the academic and functional/transition needs of students in the classroom.

Discussion

A number of principles are included in Figure 1 regarding the conceptual framework for UDT constructed to blend academics and transition content in the classroom. UDT is used to expand the concepts of barrier-free academics to include educational services related to transition through school to post-school for students with disabilities (Thoma et al., 2009). When considering the influence that blending academic and transition content has on the educational services of students with disabilities, including students with IDD (Collins et al., 2017; Root et al., 2017; Scott et al., 2011), it is realistic to develop and design a conceptual framework to encourage application. Special education teachers find that based on limited time and resources, blending academic and transition content is challenging (Konrad et al., 2008; Best et al., 2015); however, the shortage of researchers addressing pathways for teachers to blend academic and transition content may be a factor in teacher perceptions. Thus, the UDT framework for blending academics and transition content shown in the current study may be used to support teachers of students with disabilities, including teachers of students with IDD, to address challenges in meeting the needs of their students.

Building on the principles and guidelines for the UDL framework to remove barriers to teaching and learning, and transition of students from school to adult life (e.g., employment, college), the UDT framework proponents offer an approach to accomplish successfully the tasks concurrently. We believe that by grounding the UDT conceptual framework in professional literature and in the field, special education teachers, transition specialists, administrators, and other

stakeholders will find the conceptual framework useful for serving and meeting the needs of students with disabilities, including students with IDD. Additionally, based on our review of the literature, only a small number of models exist that can provide comprehensive strategies to blend academic and transition content; therefore, the UDT framework may help to fill that need in the literature.

Limitations

One limitation of the UDT framework may be that although the transition principles of UDT were constructed based on professional literature from the field and experiences of teachers, some reviewers of the current study may not perceive that the UDT transition principles encompass all transition practices and strategies necessary to meet the needs of students with disabilities. Secondary transition evidence-based practices and instructional strategies have been identified in the literature (Mazzotti, Rowe, & Test, 2013; Test, Fowler et al., 2009) and some experts may indicate that the UDT transition practices and strategies addressed in the current article are not succinctly aligned with those practices. Additionally, the UDT conceptual framework includes seven principles that are designed purposefully and carefully based on our perception of the blending of academics and transition content. However, some experts may interpret that the current researchers are proposing teachers must utilize each principle in every single lesson plan. However, the desire is that teachers and other stakeholders select the principles that should be incorporated based on the needs of their students. Thus, Appendix A contains a lesson plan template that may be useful for teachers who are interested in developing lesson plans that

will apply the UDT principles in classrooms containing students with disabilities.

Implications for Research

The UDT framework discussed has been used to provide a conceptual framework to support teachers of students with disabilities, including teachers of students with IDD, with blending academic and transition goals in the classroom. We proposed several principles to support the blending of academic and transition goals. We believe that the conceptual framework will stimulate discussion and practice among researchers and practitioners about the ability to blend academic and transition content, and spark the type of research and application of UDL and transition identified by the Education Strand of the 2015 National Goals committee (Thoma et al., 2015). For example, in the application of the UDT framework, evaluation of each principle within a specific learning environment can be used to guide work on the effectiveness of UDL and blending academic and transitions in K-12 environments. One question may include, what are the essential conditions and barriers that exist in K-12 schools to apply a UDT framework? Does the UDT framework apply in inclusive environments where students with disabilities, including students with IDD, are taught? What are the roles of stakeholders (e.g., special education, general education, administration, transition specialist) in the implementation of a UDT framework? Within K-12 academic instruction, are students provided opportunities to develop critical functional life skills when the UDT framework is applied? Based on the use of the UDT framework: Are postschool outcomes of students with disabilities improved, including individuals with IDD? While certain researchers have shown that

blending academic and transition content can lead to success (Collins et al., 2017; Root et al., 2017; Scott et al., 2011) to date, the longitudinal influences of using a comprehensive model were not reported.

Implications for Practice

At a time when standards-based learning and blending academics and transition are gaining momentum, the future research and practice of UDT will be useful when blending with the perceived disparate goals of blending expectations from ESSA and IDEA 2004. Stakeholders interested in the UDT model may consider the following undertakings useful as it relates to implications for the material in this article:

Application for teachers of students with disabilities/IDD. It is reported within the professional literature that teachers indicated limited time and resources for some of the reasons why blending academics and transition is challenging in the classroom. Based on the UDT framework, the teachers can begin to think of academics and transition in planning lessons, which can lead to planning for the activities collectively and not as two separate tasks, which may lead to decreased planning time and fewer school resources to accomplish the tasks.

Training Within Schools and School Divisions. The UDT framework can serve as a point of reference for training teachers and other stakeholders regarding how to blend academic and transition goals. Special education teachers have reported challenges with colleagues (e.g., school administrators, general education teachers) knowledge about the importance of meeting both student academic and transition needs (Best et al., 2015). While much remains to be learned about the effectiveness of UDT, utilizing the

framework in discussion and training in schools and school divisions can help establish a context for application, and the need for students with disabilities.

Research. With dissemination and application of the UDT framework, researchers may test the UDT framework to accomplish the following: (a) ensure the application of the framework; (b) ensure the social validity in environments that are inclusive of students with disabilities, including students with IDD; and (c) investigate student academic and transition outcomes related to the UDT framework.

Conclusion

Much remains to understand about blending academics and transition to meet the full needs of students. However, we believe that the current article provides valuable information in moving to develop a conceptual framework that will be useful for teachers during the process. The UDT model is grounded in the UDL framework and transition practices that prepare students with disabilities for positive postschool outcomes. Each of the UDT principles involves thoughtful planning and instruction by teachers. Consequently, teachers must be trained properly on the UDT model. Additionally, considering the work of the Education Strand of the 2015 National Goal conference, where experts identified recommendations to improve research and practice for the education of children and youth with IDD, we believe that the current article will be useful in promoting that agenda.

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Appendix A: UDT Lesson Plan Template

Lesson plans should include all of the major components based on understanding the needs and abilities of the students they teach:

PURPOSE: A description of the individual lesson to the overall academic standards and transition goals.

CONTENT OBJECTIVE: The content objective specifies the target academic and transition goals that the students will perform and includes three components:

1. Content: what will be taught is written in observable and measurable terms,
2. Conditions: where and when the behavior is to occur,
3. Criterion: standard of performance, which is used to determine successful acquisition of the objective.

UNIVERSAL DESIGN FOR LEARNING PRINCIPLES: Highlight the UDL domains used throughout the lesson (multiple means of representation, engagement, expression). Note that each UDL principle may not be necessary for each individual lesson.

1. Multiple means of representation: (may employ a variety of instructional strategies)
2. Multiple means of expression: (may employ a variety of assessments of student progress to ensure students with disabilities are able to demonstrate what they know).
3. Multiple means of engagement: (provides multiple opportunities for students to be engaged to meet the objectives)

TRANSITION PRINCIPLES: Highlight the transition domains used throughout the lesson and how they tie in with the academic goals. Note that each transition principle may not be necessary for each individual lesson.

1. Multiple life domains: (may include a focus on life domains for a range of applicability)
2. Self-determination: (may include student choosing needed supports that achieve their long-range goals)
3. Multiple resources and perspectives: (may include collaborative planning to break down barriers to provide support for students)
4. Multiple means of assessment: (evaluation can include a range of methods and are chosen based on students' needs and abilities)

RESOURCES: The resources to be used in teaching this lesson need to be identified.

ACCOMMODATIONS AND MODIFICATIONS: List those used by your students on a regular basis that are over and above those utilized in ensuring the lesson is Universally Designed.

EVALUATION: Teacher self-assessment. Teacher reflects on success of lesson by analyzing:

- a. His/her performance and the value of the lesson as a learning experience
- b. Student reactions during the lesson.