Teacher Preparation to Deliver Evidence-Based Transition Planning and Services to Youth With Disabilities



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## **Innovation Configuration for Transition Planning and Services**

This paper features an innovation configuration (IC) matrix that can guide teacher preparation professionals in the development of appropriate transition planning and services content. This matrix appears in Appendix A.

An IC is a tool that identifies and describes the major components of a practice or innovation. With the implementation of any innovation comes a continuum of configurations of implementation from non-use to the ideal. ICs are organized around two dimensions: essential components and degree of implementation (Hall & Hord, 1987; Roy & Hord, 2004). Essential components of the IC—along with descriptors and examples to guide application of the criteria to course work, standards, and classroom practices—are listed in the rows of the far left column of the matrix. Several levels of implementation are defined in the top row of the matrix. For example, no mention of the essential component is the lowest level of implementation and would receive a score of zero. Increasing levels of implementation receive progressively higher scores.

ICs have been used in the development and implementation of educational innovations for at least 30 years (Hall & Hord, 2001; Hall, Loucks, Rutherford, & Newton, 1975; Hord, Rutherford, Huling-Austin, & Hall, 1987; Roy & Hord, 2004). Experts studying educational change in a national research center originally developed these tools, which are used for professional development (PD) in the Concerns-Based Adoption Model (CBAM). The tools have also been used for program evaluation (Hall & Hord, 2001; Roy & Hord, 2004).

Use of this tool to evaluate course syllabi can help teacher preparation leaders ensure that they emphasize proactive, preventative approaches instead of exclusive reliance on behavior reduction strategies. The IC included in Appendix A of this paper is designed for teacher preparation programs, although it can be modified as an observation tool for PD purposes.

The Collaboration for Effective Educator, Development, Accountability, and Reform (CEEDAR) Center ICs are extensions of the seven ICs originally created by the National Comprehensive Center for Teacher Quality (NCCTQ). NCCTQ professionals wrote the above description.



Since 1990, and with subsequent amendments in 1997 and 2004, the secondary transition provisions of the Individuals with Disabilities Education Act (IDEA) have required special educators to plan, coordinate, and deliver transition services for secondary-aged students with disabilities (U.S. Department of Education, 2011). Section 300.43 of IDEA 2004 defines transition services as a coordinated set of activities for a child with a disability that (a) is designed to be within a results-oriented process focused on improving the academic and functional achievement of the child with a disability to facilitate the child's movement from school to postschool activities, including postsecondary education, vocational education, integrated and supported employment, continuing and adult education, adult services, independent living, or community participation and (b) is based on the individual child's needs, taking into account the child's strengths, preferences, and interests, including instruction, related services, community experiences, the development of employment and other postschool adult living objectives, and if appropriate, acquisition of daily living skills and provision of a functional vocational evaluation (U.S. Department of Education, 2011).

Despite these requirements, students with disabilities continue to face postschool outcomes in which they are less prepared for adulthood than their peers without disabilities (Newman, Wagner, Cameto, & Knokey, 2009). This discrepancy may be due, in part, to secondary special educators feeling unprepared to plan for and deliver transition services (Li, Bassett, & Hutchison, 2009; Wolfe, Boone, & Blanchett, 1998). Studies have shown that secondary special educators lack knowledge and skills that hinder their abilities to implement effective transition practices (Benitez, Morningstar, & Frey, 2009; Knott & Asselin, 1999). Consequently, teachers who are unprepared to plan and deliver transition services may be



inadvertently contributing to the poor outcomes of students with disabilities (Morningstar & Clavenna-Deane, in press).

Given the changing roles of secondary special educators, it stands to reason that teacher education programs should be geared toward increasing pre-service content targeting transition planning and services. Unfortunately, Anderson and colleagues (2003) reported from a national survey of special education personnel preparation programs that less than half of the programs (i.e., 43%) offered a stand-alone course devoted to secondary transition. Transition personnel development (i.e., pre- and in-service) has been recognized as a keystone to improving transition services (Blalock et al., 2003); however, clear guidance has not been provided for establishing high-quality approaches that prepare secondary transition teachers with the knowledge and skills to improve in-school and postschool outcomes for students with disabilities.

This IC can serve as a foundation for enhancing current practices in preparing special educators to provide transition services. As such, this IC examines (a) the current state of identified transition evidence-based practices (EBPs) and predictors of postschool success to support students with disabilities as they transition into postschool life; (b) a review of critical programmatic structures and services teachers must have that predict better postschool outcomes, including secondary transition EBPs to support student skill development; and (c) implications for future practice and research, including how state educational agencies (SEA) and institutions of higher education (IHE) can utilize the IC to identify areas of strengths and necessary changes to improve transition services that result in improved adult outcomes for youth with disabilities.

#### Required Knowledge and Skills for Teachers of Secondary Students With Disabilities

In order to improve in-school and postschool outcomes for students with disabilities, teachers must be prepared with the knowledge and skills to provide secondary transition EBPs and programs. However, recent survey research indicates that many transition specialists and



teachers are not fully prepared to effectively implement secondary transition EBPs, and many have indicated that they are unaware of established EBPs that contribute to postschool success (Mazzotti & Plotner, 2013; Morningstar & Roberts, in preparation). To ensure that teachers are fully prepared to provide effective secondary transition programs and practices, student-level EBPs and systems-level predictors of students' postschool success must be included in teacher education programs (Cook, Cook, & Landrum, 2013; Mazzotti, Test, & Mustian, 2012).

In 2009, the National Secondary Transition Technical Assistance Center (NSTTAC, 2013) completed a two-part systematic literature review that included identifying secondary transition EBPs (Test, Fowler, et al., 2009) and predictors of students' postschool success (Test, Mazzotti, et al., 2009). The first comprehensive literature review focused on identifying secondary transition EBPs to determine practices that supported secondary transition skill development for students. Based on the first review of literature, 63 secondary transition EBPs were identified (Test, Fowler, et al., 2009). Kohler's Taxonomy for Transition Programming (i.e., *Taxonomy*; Kohler, 1996) was used to organize EBPs. The *Taxonomy* is a research-based framework used in the field of secondary transition to guide the development, implementation, and evaluation of secondary transition programs (Kohler & Field, 2003; Mazzotti, Rowe, & Test, 2013). The *Taxonomy* includes five essential areas: (a) student-focused planning, (b) student development, (c) family involvement, (d) program structure, and (e) interagency collaboration. Of the 63 practices, six were identified under the taxonomy area of student-focused planning, 56 were identified under student development, one was identified under family involvement, nine were identified under program structure, and nothing was identified under interagency collaboration (Test, Fowler, et al., 2009). See Appendix B: Table B1 for a list of EBPs by taxonomy area. In an effort to bridge the research-to-practice gap, NSTTAC developed Practice



Descriptions that describe each EBP in detail and Research to Practice Lesson Plan Starters that provide teachers with lesson plans based on the empirical research they can use to teach each EBP (NSTTAC, 2013).

Although the first review examined group and single-subject experimental research and provided pertinent information related to EBPs to support skill development of secondary students with disabilities, it did not provide information about secondary transition program components that lead to positive outcomes for students with disabilities as they transition into postschool life. Therefore, the second review of literature focused on reviewing correlational research to determine in-school secondary transition program components that were linked to positive postschool outcomes for students with disabilities (Test, Mazzotti, et al., 2009). Based on findings of the second review, 16 evidence-based predictors of postschool success were identified (see Appendix B: Table B2). Since the initial review, one additional predictor (i.e., parental expectations) has been added.

Finally, in an effort to support secondary transition program improvement, NSTTAC and the National Post-School Outcomes Center have recently completed a Delphi study to further define each predictor category in order to operationally define each predictor, including essential program characteristics, to ensure that educators understand the components to develop, implement, and evaluate secondary transition programs (Rowe et al., 2013a). Based on the results of the Delphi study, a Predictor Implementation School/District Self-Assessment was developed for schools, districts, and states to use to evaluate, develop, and improve transition programs to ensure that programs include evidence-based transition program characteristics (Rowe et al., 2013b).



### **Essential Components of Effective Transition Programs**

For teachers to be prepared to implement secondary transition EBPs and predictors of postschool success, it is imperative that teacher education programs include these essential evidence-based components throughout a course of study (Morgan, Callow-Heuser, Horrocks, Hoffman, & Kupferman, 2013; Morningstar & Clark, 2003). It is important to note that although secondary transition personnel must have the knowledge and skills required to implement EBPs, there is a need for transition personnel to understand the systems-level supports that must also be in place to ensure that programs can effectively support students with disabilities as they transition into adulthood. Therefore, it is imperative that personnel preparation programs also provide this information. Systems-level supports typically fall under the taxonomy categories of program structure and interagency collaboration and comprise the infrastructures to ensure that comprehensive transition programs are effectively implemented. The following discussion of EBPs and predictors of postschool success is organized according to the five areas of the taxonomy and include an overview of secondary transition EBPs and predictors of postschool success, including systems-level implementation, for students with disabilities.

#### **Student-Focused Planning**

There are five essential components for this area that should be considered while preparing teachers to work with secondary students with disabilities: (a) involving students in transition individualized education programs (IEPs), (b) teaching transition planning skills, (c) including in the IEP a comprehensive and relevant program of study, (d) defining in the IEP appropriate and measurable transition goals, and (e) utilizing systematic and age-appropriate transition assessment. Teachers must first be familiar with the predictors of postschool success that relate to the essential components. This familiarity provides teachers with the knowledge and skills to ensure that programs include EBPs leading to positive postschool success.



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Specifically, there are two predictors of postschool success (i.e., self-determination/selfadvocacy and program of study) related to these essential components that should be considered while preparing teachers to effectively implement secondary transition programs. First, research indicates that students who graduate high school with higher levels of self-determination are more likely than students who graduate high school with lower levels of self-determination to have positive postschool employment and education outcomes (Morningstar et al., 2010; Test, Mazzotti, et al., 2009). Self-determination/self-advocacy refers to "the ability to make choices, solve problems, set goals, evaluate options, take initiative to reach one's goals, and accept consequences of one's actions" (Rowe et al., 2013b, p. 8). Related to these essential components, teachers must be prepared to teach self-advocacy skills, goal-setting skills, choice-making skills, and problem-solving skills. Additionally, teachers must be prepared to understand "cultural nuances" while teaching self-determination (Rowe et al., 2013b, p. 9) to ensure that cultural identity is considered while supporting students from diverse backgrounds to make transition decisions and utilize self-determination strategies (Trainor, 2005).

Educators must also understand how to embed skill development and opportunities for students to practice self-determined skills within academic course content as well as throughout other aspects of students' days. This may include implementing the Self-Determination Learning Model of Instruction (Shogren, Palmer, Wehmeyer, Williams-Diehm, & Little, 2012), which can be implemented in general educational contexts and special education settings. Teachers must also have an understanding of using student-centered transition assessment methods to facilitate the ability of students to learn about themselves, set in-school and postschool goals, and participate in the transition planning process. This is especially relevant while preparing students to self-direct their transition planning meetings (Martin et al., 2006).



Developing a relevant program of study has also been identified as a predictor of positive postschool employment success for students with disabilities (Test, Mazzotti, et al., 2009). Program of study has been operationally defined as "an individualized set of courses, experiences, and curriculum designed to develop students' academic and functional achievement to support the attainment of students' desired postschool goals" (Rowe et al., 2013b, p. 8). Therefore, effective transition programming requires that teachers have the knowledge and skills to work with students to develop an individualized program of study that incorporates relevant school experiences that engage students throughout their secondary school years. This requires secondary educators to understand and implement EBPs. Secondary educators must also understand predictors of postschool success, models of individualized learning plans (Solberg, Wills, & Osman, 2013), and diploma options available to all students.

**Evidence-based practices for student-focused planning.** NSTTAC has identified six EBPs that teachers can use to facilitate their understanding and implementation of student-focused planning (see Appendix B: Table B1; refer to

http://www.nsttac.org/content/evidence-based-practices for Practice Descriptions and Research to Practice Lesson Plan Starters). For each EBP identified under student-focused planning, there are a number of empirically validated teaching strategies used to teach each skill. Two examples of EBPs to teach student involvement in transition IEPs are the Self-Advocacy Strategy (VanReusen, Bos, & Shumaker, 1994) and the Self-Directed IEP (Martin, Huber-Marshall, Maxson, & Jerman, 1996). These practices have a number of empirical research studies to support use (e.g., Allen, Smith, Test, Flowers, & Wood, 2001; Lancaster, Shumaker, & Deshler, 2002; Martin et al., 2006; Test & Neale, 2004). Additionally, the Whose Future Is It Anyway? curriculum (Wehmeyer, Lawrence, Soukup, & Palmer, 2004) has been identified as an EBP for



teaching students about the transition planning process. Teacher education programs must provide educators with opportunities to learn about and implement EBPs related to student-focused planning, including having the opportunity to implement EBPs and predictors in course work and field experiences.

#### **Student Development**

The taxonomy area of student development includes assessing and teaching functional, academic, social, and vocational skills to ensure that students are fully prepared for postschool life (Kohler, 1996). In this area, teachers should be prepared to teach and provide training related to (a) independent living, (b) community participation, (c) employment skills, (d) work-based experiences, (e) academics, and (f) self-determination. This taxonomy area has the most extensive depth and breadth of research evidence; therefore, teachers should develop a content map of the range of practices leading to student skill development and the factors that facilitate postschool success. While preparing teachers to assess and teach transition-related, student-specific skills, culturally responsive teaching approaches that incorporate cultural knowledge, prior experience, frame of reference, and performance styles of diverse students should be emphasized so that learning is relevant and effective (Gay, 2010). The following sections are organized by the essential student development components.

Independent living skills. Two predictors of postschool success related to teaching independent living skills (i.e., self-care/independent living and social skills) should be considered. Self-care/independent living has been operationally defined as "skills necessary for management of one's personal self-care and daily independent living, including the personal management skills needed to interact with others, daily living skills, financial management skills, and the self-management of healthcare/wellness needs" (Rowe et al., 2013b, p. 9). The second predictor of postschool success is social skills, operationally defined as "behaviors and attitudes



that facilitate communication and cooperation (e.g., social conventions and social problem-solving while engaged in a social interaction, body language, speaking, listening, responding, verbal and written communication)" (Rowe et al., 2013b, p. 10). Specifically, teachers must be prepared to integrate both independent living skills and social skills as needed to support the diverse needs of students. Therefore, at the systems level, teachers must know how to effectively embed independent living and social skills across academic content areas in the general educational context and community settings.

Next, teachers must be prepared to teach independent living skills to students with disabilities. Independent living skills training will vary based on the needs of individual students. NSTTAC has identified nine EBPs for teaching independent living (i.e., home maintenance skills, leisure skills, food preparation and cooking skills, laundry skills, self-management skills, safety skills, communication skills, self-care skills, and social skills; see Appendix B: Table B1; refer to http://www.nsttac.org/content/evidence-based-practices for Practice Descriptions and Research to Practice Lesson Plan Starters). For each of the independent living skills, there are a number of EBPs that have been used to teach each skill. For example, computer-assisted instruction has been used to teach food preparation and cooking skills to students with intellectual disabilities (Ayres & Cihak, 2010; Mechling, Gast, & Fields, 2008; Mechling & Stephens, 2009). Additionally, video modeling has been used to teach home maintenance skills to students with autism and moderate intellectual disabilities (e.g., Cannella-Malone, Wheaton, Wu, Tullis, & Park, 2012; Lasater & Brady, 1995; Mechling, Gast, & Gustafson, 2009).

The EBP descriptions and NSTTAC resources provide methods for teaching evidence-based independent living skills. Given that these resources are now readily available,



teacher education programs must prepare teachers to (a) teach independent living skills using EBPs, (b) understand when independent living skill training is needed, and (c) provide opportunities to use EBPs during course work and field experiences.

**Community participation skills.** Thus far, only one predictor of postschool success related to teaching community participation skills (i.e., community experiences) has been identified. Community experiences have been operationally defined as "activities occurring outside of the school setting, supported with in-class instruction, where students apply academic, social, and/or general work behaviors and skills" (Rowe et al., 2013b, p. 6). Teachers should have the knowledge and skills to effectively understand the characteristics of this predictor while determining opportunities students have to participate in community experiences in transition programs. Specifically, teachers must be prepared to integrate community experiences into the curriculum; they must also learn to consider rigorous simulated school experiences when budgetary funds are limited. At the systems level, teachers must be prepared with the knowledge and skills to identify methods to provide meaningful community experiences (Landmark, Ju, & Zhang, 2010). This includes preparing teachers with information about how to allocate resources at the school and community levels, work with community partners, and conduct community mapping to determine opportunities and available resources to facilitate community experiences for students with disabilities.

Teachers must be prepared to provide community-based instruction to students with disabilities to support the generalization of skills learned in the classroom and work with students to interpret and deepen their existing knowledge and enthusiasm for learning (Wiodowski & Ginsberg, 1995). It is essential to understand students' cultures and use their communities to support engagement. NSTTAC has identified a number of EBPs for teaching community



participation skills (i.e., restaurant purchasing skills, grocery shopping skills, life skills, and finance skills; see Appendix B: Table B1; refer to http://www.nsttac.org/content/evidence-based-practices for Practice Descriptions and Research to Practice Lesson Plan Starters). For each of these skills, there have been a number of empirically validated studies that have used community-based instruction to teach each skill. For example, community-based instruction has been used to teach community integration skills, including crossing the street, washing clothes at a Laundromat, and cashing a check at a bank (i.e., Bates, Cuvo, Miner, & Korebek, 1999; Branham, Collins, Schuster, & Kleinhert, 1999; Collins, Stinson, & Land, 1993). Additionally, simulated instruction in the classroom paired with community-based instruction at a local grocery store has been used to teach students banking skills (i.e., withdrawing money from an ATM; Alberto, Cihak, & Gama, 2005).

The EBPs related to community participation and the NSTTAC resources provide methods for teaching evidence-based community participation skills. Therefore, teacher education programs must prepare teachers to (a) understand the importance of community-based instruction for teaching generalization of skills; (b) teach community participation skills using EBPs; (c) understand when community participation is needed; (d) investigate methods to connect learning to schools and communities to facilitate community participation (e.g., community mapping); and (e) provide opportunities for teachers to use community participation EBPs during course work and field experiences.

**Employment skills and experiences.** This essential component includes teacher knowledge and skills related to providing both school- and work-based employment opportunities for students with disabilities while they are in high school. There are five predictors of postschool success related to teaching employment skills and experiences



(i.e., career awareness, occupational courses, paid employment/work experience, vocational education, and work study). See Appendix B: Table B2 for operational definitions of each of the predictors related to teaching employment skills and experiences.

Specifically, teachers must be prepared to integrate school- and work-based career development experiences into the curriculum. This should include preparing teachers with the knowledge and skills to understand how to develop, implement, and evaluate school- and work-based experiences. At the systems level, teachers must be able to identify meaningful school-based (e.g., school-based enterprises, on-campus jobs) and work-based (e.g., volunteering, job shadowing, internships, paid work experiences) career development experiences (Baer et al., 2003; Benz, Lindstrom, & Yovanoff, 2000). This includes preparing teachers with information about how to (a) develop and implement school-based employment opportunities, (b) identify and allocate resources at the school and community levels to ensure employment opportunities for students, and (c) develop partnerships with employers and community partners to facilitate off-campus work experiences for students with disabilities.

In addition to understanding the predictors, teachers must be prepared to provide employment skill training to ensure that students with disabilities have the skills to gain meaningful, competitive employment in postschool life. Employment skill training will vary based on the needs of individual students. NSTTAC has identified seven EBPs for teaching job-specific employment skills (e.g., cleaning a bathroom, using a copy machine; see Appendix B: Table B1; refer to http://www.nsttac.org/content/evidence-based-practices for Practice Descriptions and Research to Practice Lesson Plan Starters). There are a number of empirically validated teaching strategies that have been used to teach employment skills. For example, mnemonics has been used to teach students to complete job applications (Nelson, Smith, &



Dodd, 1994). Additionally, computer-assisted instruction has been used to teach employment skills such as rolling silverware, watering office plants, and changing paper towels in an office bathroom (Mechling & Ortega-Hurndon, 2007; Riffel et al., 2005).

These EBPs and the NSTTAC resources provide methods for teaching evidence-based employment skills. Therefore, teacher education programs must prepare teachers to (a) assess student employment skills and interests, (b) understand how to provide employment skills instruction and embed career awareness into the curriculum, (c) effectively implement school- and work-based employment experiences, and (d) provide opportunities to use EBPs to teach employment skills during course work and field experiences.

**Teaching academic skills.** This essential component includes teacher knowledge and skills related to academic skill instruction for students with disabilities while they are in high school. There are three predictors of postschool success related to teaching academic skills (i.e., exit exam requirements/high school diploma status, inclusion in general education, and program of study). Exit exam requirements/high school diploma status has been operationally defined as

standardized tests, assessing a single content area (e.g. Algebra, English) or multiple skill areas with specified levels of proficiency that students must pass in order to obtain a high school diploma. Diploma status is achieved by completing the requirements of the state awarding the diploma including the completion of necessary core curriculum credits. (Rowe et al., 2013b, pp. 6-7)

Inclusion in general education has been operationally defined as follows: "General education requires students with disabilities to have access to general education curriculum and be engaged in regular education classes with peers without disabilities" (Rowe et al., 2013b, p. 7). Last,



program of study has been operationally defined as "an individualized set of courses, experiences, and curriculum designed to develop students' academic and functional achievement to support the attainment of students' desired postschool goals" (Rowe et al., 2013b, p. 8).

Teachers should have the knowledge and skills to understand the academic skills, including functional academic skills, required for students to participate in a particular program of study, access the general curriculum, and obtain a high school diploma. At the systems level, teachers must be prepared with the knowledge and skills to implement the principles of Universal Design for Learning (UDL) to support students with disabilities in the general curriculum, work with administrators and other school personnel to ensure that students with disabilities are successful in academic settings, and identify a process for students to be successful and supported in a specific program of study (Rowe et al., 2013b). This includes preparing teachers with information about how to (a) differentiate instruction; (b) provide learning strategies and meta-cognitive strategy instruction; (c) develop relationships with general education teachers, including career and technical education teachers, to support students with disabilities; and (d) identify needed accommodations and assistive technology (AT) that can support students with disabilities in academic settings.

Teachers must also be prepared to provide academic skills, including functional academic skills, for students with disabilities to ensure that students have the reading, writing, and math skills to be successful in all aspects of postschool life. Academic skill training will vary based on the needs of individual students. NSTTAC has identified a number of EBPs for teaching both academic and functional academic skills (see Appendix B: Table B1; refer to http://www.nsttac.org/content/evidence-based-practices for Practice Descriptions and Research to Practice Lesson Plan Starters). For example, peer-assisted instruction (e.g., peer tutoring,



cooperative learning) has been used to teach math and writing skills (Bahr & Rieth, 1991; Wong, Butler, Ficzere, & Kuperis, 1997). Additionally, mnemonics has been used to facilitate learning of new information and teach math skills (i.e, Wolgemuth, Cobb, & Alwell, 2008).

The EBPs and the NSTTAC resources provide methods for teaching evidence-based academic skills; therefore, teacher education programs must prepare teachers with knowledge and skills to (a) teach learning and meta-cognitive strategies to support academic skill development; (b) understand how to provide functional academic skills instruction; (c) embed real-life examples within academic content; (d) provide remediation, accommodations, and AT to support academic skill development; and (e) provide opportunities to use these EBPs during course work and field experiences.

Self-determination skills. This essential component includes teacher knowledge and skills related to self-determination skill instruction for students with disabilities. The one predictor of postschool success related to self-determination has been operationally defined as "the ability to make choices, solve problems, set goals, evaluate options, take initiative to reach one's goals, and accept consequences of one's actions" (Rowe et al., 2013b, p. 8). The concept of self-determination includes 12 component skills that students must possess in order to lead a self-determined postschool life: (a) choice-making skills; (b) decision-making skills; (c) problem-solving skills; (d) goal-setting and attainment skills; (e) independence, risk-taking, and safety skills; (f) self-regulation/self-management skills; (g) self-instruction skills; (h) self-advocacy and leadership skills; (k) self-awareness skills; and (l) self-knowledge skills (Wehmeyer & Schalock, 2001).



At the systems level, teachers must be prepared with the knowledge and skills to develop and implement procedures that include teaching self-determination skills, working with general education teachers to ensure that opportunities related to self-determination are embedded across the curricula, and embedding real-life experiences in the curriculum to provide opportunities for students to learn self-determination skills (Wehmeyer & Schalock, 2001). This includes (a) preparing teachers with information about self-determination assessment and curricula; (b) developing and implementing student leadership opportunities; (c) developing plans that include general education teachers to ensure that choice making, problem solving, and goal setting are embedded in lesson planning across the curricula; and (d) identifying EBPs related to self-determination to support students with mild, moderate, and severe disabilities.

In addition to understanding the predictors of postschool success, teachers must be prepared to provide instruction for students with disabilities to ensure that they have the self-determination skills to be successful in all aspects of postschool life. Instruction related to self-determination skills will vary based on the needs of individual students. NSTTAC has identified two EBP curricula for teaching self-determination skills (i.e., Whose Future Is It Anyway? and Self-Determined Learning Model of Instruction [SDLMI]; see Appendix B: Table B1; refer to http://www.nsttac.org/content/evidence-based-practices for Practice Descriptions and Research to Practice Lesson Plan Starters). These EBPs have been used to teach several self-determination skills (e.g., goal-setting skills, problem-solving skills, decision-making skills). For example, Whose Future Is It Anyway? has been used to teach a number of self-determination skills required in the transition planning process (e.g., self-awareness skills, goal-setting skills, decision-making skills, decision-making skills, Y. Lee et al., 2011). Additionally, the SLDMI has been used to teach goal setting and attainment skills (S. Lee, Wehmeyer, Palmer, Soukup, & Little, 2008).



These EBPs and the NSTTAC resources provide methods for teaching evidence-based self-determination skills. Although these practices and resources are readily available, teacher education programs must prepare teachers with (a) an understanding of the concept of self-determination, (b) knowledge and skills to effectively teach self-determination skills and embed real-life self-determination examples into the curriculum, (c) an understanding of the various self-determination assessments and curricula available for teaching self-determination skills, and (d) opportunities to use self-determination-skill EBPs during course work and field experiences.

#### **Family Involvement**

This essential component includes involving families in the transition planning process and empowering families to take a role in the process (Kohler, 1996). There are five essential components in this area that should be considered while preparing teachers to work with secondary students with disabilities: (a) facilitating parental involvement, engagement, and support for postschool outcomes; (b) encouraging parent involvement in transition planning; (c) understanding student perceptions of family support; (d) promoting positive parental expectations for postschool employment and education; and (e) implementing parental training in transition.

Parental involvement is one predictor of postschool success to consider while preparing teachers to involve and empower families in transition planning. Parental involvement has been operationally defined as follows: "Parents/families/guardian are active and knowledgeable participants in all aspects of transition planning (e.g., decision making, providing support, attending meetings, and advocating for their child)" (Rowe et al., 2013b, p. 11). Teachers must be prepared with the knowledge and skills to provide information to parents or caregivers about all aspects of the transition process, establish a school-wide system to facilitate ongoing



communication with families, and ensure school staff members' knowledge related to providing culturally competent transition planning.

Further, parental expectations have been identified as predictors of postschool success for students with disabilities. It is important that teachers understand effective transition components that should be included in a transition program that may affect parents' expectations for their students in the transition planning process (Doren, Gau, & Lindstrom, 2012). Additionally, encouraging parent involvement can promote active student involvement in the transition planning process (Wagner, Newman, Cameto, Javitz, & Valdes, 2012). This includes preparing teachers to (a) understand families, including families from culturally diverse backgrounds; (b) identify methods for involving families in the transition process; (c) work with families and students to promote understanding of the importance of preparing students for postschool life; and (d) promote positive parental expectations for culturally relevant postschool employment and education.

Teachers must also understand the EBPs that can be used to promote family involvement during transition planning. Offering training has been empirically validated as a strategy to promote family involvement. For example, in one study, training was used to teach parents about transition planning and how to be an integral part of the process (Boone, 1992). Furthermore, in other fields of study, parent training interventions have been established as EBPs (cf. Kaminsky, Valle, Filene, & Boyle, 2008).

It is important that teachers are prepared not only to implement effective parent training, but also to understand the importance of the parental-involvement predictors of postschool success. Teacher education programs must provide teachers with (a) an understanding of the importance of family involvement, (b) opportunities to develop training they can use to facilitate



family involvement, (c) knowledge and skills to work with families from diverse backgrounds, and (d) opportunities to work with families during course work and field experiences.

## **Program Structure**

This component involves evaluating and improving transition programs to support the needs of students with disabilities (Kohler, 1996). As previously mentioned, program structure requires not only teacher facilitation of effective transition programs and practices, but also an understanding of and the ability to elicit systems-level support. Therefore, teacher education programs should include information related to the infrastructures and systems related to stakeholder involvement and participation in stakeholder groups while providing in-school and postschool transition services for students with disabilities.

To ensure the needs of all students with disabilities are met, teachers, along with other school staff members and administrators, must understand how to evaluate and improve secondary transition programs to ensure continual program improvements. The essential program structure components are (a) promoting opportunities for extended transition services (18-21 programs), (b) promoting inclusion in general education, (c) ensuring that effective transition programs and services are in place, (d) promoting student supports, (e) ensuring students meet exit exam requirements and achieve high school diploma status, and (f) implementing drop-out prevention interventions for at-risk youth. Teachers must also have the knowledge and skills to effectively implement predictors of postschool success related to these program structure components.

Specifically, there are four predictors related to these essential components (i.e., student support, inclusion in general education, transition program, and exit exam/high school diploma status) that should be considered while preparing teachers to ensure that students receive effective evidence-based transition planning and services. See Appendix B: Table B2 for the



operational definition of each of the predictors of postschool success related to program structure. Teachers must be prepared with the knowledge and skills to improve transition programs; they must (a) understand the characteristics of each of the predictors of postschool success as it relates to transition program components; (b) identify opportunities that students with mild, moderate, and severe disabilities have for extended transition services beyond high school; (c) have knowledge and skills to facilitate access to the general curriculum for all students with disabilities; (d) identify models of transition programs (e.g., employment programs, career technical education, college training) that can be implemented in high school; and (e) develop and implement both informal and formal student support networks to ensure that students are supported as they move through high school into postschool life.

Teachers must also understand EBPs related to program structures that can be used to support students with disabilities. NSTTAC has identified three EBPs that can be used by teachers and schools to support students (i.e., Check and Connect, community-based instruction, and extension of career planning services after graduation; see Appendix B: Table B2; refer to http://www.nsttac.org/content/evidence-based-practices for Practice Descriptions and Research to Practice Lesson Plan Starters). There are a number of empirically validated practices related to these EBPs. For example, Check and Connect has been used to promote student involvement in IEP meetings with students who have participated in systematic monitoring, mentoring, and problem-solving and goal-setting training; there is also a variety of methods used to facilitate participation in IEP meetings (Sinclair, Christensen, & Thurlow, 2005). In addition, extension of career planning services after graduation has been used to promote increased financial skills for students with disabilities by providing varied services (e.g., job training, identifying employers,



linking with adult service providers, on-the-job training, vocational assessment; Izzo, Cartledge, Miller, Growick, & Rutkowski, 2000).

Teacher education programs must prepare teachers with (a) an understanding of the need for effective methods to ensure that transition programs include all of the components to promote student success, (b) knowledge and skills to effectively evaluate and improve transition programs and practices, (c) knowledge and understanding of methods to facilitate both informal and formal support systems for students with disabilities, and (d) opportunities to design and implement EBPs related to program structure during course work and field experiences.

### **Interagency Collaboration**

Interagency collaboration involves methods for developing relationships and agreements with agency partners required to facilitate successful transitions into postschool life for students with disabilities (Kohler, 1996). There are three essential components in this area that should be considered while preparing teachers to work with secondary students with disabilities: (a) connecting students and families to outside agencies, (b) understanding critical elements of interagency collaboration, and (c) cross-disciplinary training.

EBPs have not yet been identified for interagency collaboration; however, interagency collaboration is a predictor of postschool education and employment success (Test, Mazzotti, et al., 2009). Furthermore, interagency collaboration has been continually identified in the literature as a best practice in the transition planning process (Kohler, 1996; Morgan et al., 2013; Morningstar & Clark, 2003). Therefore, it is imperative that teachers are effectively prepared with the knowledge and skills to facilitate both intra-agency and interagency collaboration.

Similar to program structure, interagency collaboration requires not only teacher effort, but also systems-level supports that include making connections with intra-agency and interagency personnel to ensure that students with disabilities are linked to services and supports



to ensure both in-school and postschool success. Therefore, teacher preparation programs should include information related to systems-level supports that enhance teachers' knowledge and skills related to intra-agency and interagency collaboration. While considering intra-agency and interagency collaboration, it is imperative that teachers, along with other stakeholders, understand how the needs of students with disabilities from culturally diverse backgrounds are being met.

There is one predictor of postschool success related to these essential components that should be considered while preparing teachers to effectively facilitate intra-agency and interagency collaboration (i.e., interagency collaboration). Interagency collaboration has been operationally defined as "a clear, purposeful, and carefully designed process that promotes cross-agency, cross-program, and cross-disciplinary collaborative efforts leading to tangible transition outcomes for youth" (Rowe et al., 2013b, p. 10). Teachers must be prepared with the knowledge and skills to facilitate intra-agency collaboration (i.e., collaboration within school [e.g., general education teachers, career technical educators, related service providers]) and interagency collaboration (i.e., collaboration with adult service providers and community partners). This includes preparing teachers to (a) participate in interagency councils; (b) develop and/or understand district/state interagency agreements; (c) identify methods for developing community partnerships (i.e., local businesses, recreational programs, and parent networks); (d) conduct community mapping to identify resources and adult services providers within the community; (e) understand interagency collaboration models; and (f) effectively collaborate with school personnel to ensure that students with disabilities are supported throughout the school environment; this includes collaborating to ensure that students receive appropriate accommodations and AT as needed in course work.



This section has described the required knowledge and skills that teachers must have to provide evidence-based secondary transition programs and practices. It is imperative that teacher education programs include these components to ensure that pre- and in-service teachers are prepared to support secondary students with disabilities. The predictors of postschool success should guide transition program development and instruction, and the transition EBPs should be used to promote student skill development. This helps ensure that pre- and in-service teachers are prepared to successfully work with secondary students with disabilities.

#### **Recommendations and Conclusions**

Although general consensus has been reached regarding the essential components for teaching transition content, research related to EBPs for teaching transition skills offers continued enhancements to what should be taught. The steady increase in the volume of research targeting evidenced-based interventions for teaching students transition-related skills should guide content enhancement efforts for IHEs and SEAs. A large research base related to secondary transition EBPs has been identified for teachers to use to promote student skill development; this research base includes content such as (a) teaching academic and functional skills, employment skills, and self-determination skills; (b) providing community-based instruction; and (c) facilitating family involvement (Test, Fowler, et al., 2009). Additionally, there are 17 operationally defined predictors of postschool success (see Appendix B: Table B3) that support essential program components that should be considered for inclusion in teacher preparation programs to ensure that teachers are prepared to work with stakeholders to evaluate, develop, and enhance secondary transition programs at the school, district, and systems levels (Mazzotti et al., 2012; Rowe et al., 2013; Test, Mazzotti, et al., 2009). Taken together, these research syntheses provide direction for preparing secondary special educators and transition



specialists in EBPs exhibiting at least moderate effects on student skill development; they also point to important areas that predict future in-school and postschool success.

Furthermore, it is important to note that although two of the taxonomy areas (i.e., student-focused planning and student development) have a number of EBPs to support the research base, there are three areas (i.e., family involvement, program structure, and interagency collaboration) that have a limited number of EBPs or no EBPs. This has implications for IHEs and researchers because consideration must be given to future research related to these areas to enhance the research base. On the other hand, while including the areas of family involvement, program structure, and interagency collaboration in personnel preparation programs, IHE and SEA professionals should discuss these areas in terms of the identified predictors of postschool success to ensure that teachers understand the essential program characteristics that have been linked to positive postschool outcomes for youth with disabilities.

While preparing secondary transition teachers, the challenge is to not only support teachers in gaining the knowledge and skills to implement secondary transition EBPs and predictors of postschool success, but to also change current practice. The results from meta-analyses and systematic literature reviews identifying transition interventions showing evidence of effectiveness should be carefully considered while developing transition course work (Haber et al., 2013; Test, Fowler, et al., 2009; Test, Mazzotti, et al., 2009). It is clear that research should continue to address the impact of transition teacher education to ensure that secondary teachers are implementing EBPs. The next generation of research must directly examine student postschool outcomes in relationship to teacher training. In addition, teacher preparation programs must carefully examine what are believed to be essential components of transition but for which there is limited research (e.g., family involvement, interagency



collaboration). Finally, future researchers should consider examining the degree to which current transition programs include EBPs in course work. To date, this important area of research has yet to be undertaken.

Teacher education programs must continue to identify and embed instruction related to secondary transition throughout course work. Because many teacher preparation programs may have only a single course (or no courses) introducing transition practices, it is imperative that teacher education programs use this IC to evaluate their content and methods of instruction. This will offer guidance to program professionals to consider addressing essential transition components throughout course work to ensure that teachers are prepared with the knowledge and skills to provide evidence-based transition programming to students with disabilities. Ultimately, this should lead to improved teacher preparation at the secondary level and improved in-school and postschool outcomes for students with disabilities.



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# Appendix A

## Innovation Configuration for Transition Planning and Services

Essential Components	Implementation Levels				
Instructions: Place an X under the	Level 0	Level 1	Level 2	Level 3	Rating
for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
1. Student-Focused Planning					
<ul> <li>1.1 - Involving students in transition IEP.</li> <li>Using curricula and EBPs to promote student involvement in transition IEP</li> <li>Self-Advocacy Strategy</li> <li>Self-Directed IEP</li> </ul>					
<ul> <li>1.2 - Teaching transition planning skills (practice and predictors).</li> <li>Knowledge of transition planning</li> <li>Skills to set and attain goals</li> </ul>					
1.3 - Including a comprehensive and relevant program of study in IEP (predictor).					



Essential Components	Implementation Levels				
Instructions: Place an X under the	Level 0	Level 1	Level 2	Level 3	Rating
appropriate variation implementation score for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
1. Student-Focused Planning					
1.4 - Including appropriate and measurable transition goals in IEP (predictor).					
1.5 - Including systematic age-appropriate transition assessment (predictor).					
2. Student Development					
<ul> <li>2.1 - Teaching independent living skills (all practices).</li> <li>Home maintenance skills (e.g., cleaning)</li> <li>Leisure skills</li> <li>Food preparation and cooking skills</li> <li>Laundry skills</li> <li>Self-management skills</li> <li>Safety skills</li> <li>Communication skills</li> </ul>					



Essential Components	Implementation Levels				
Instructions: Place an X under the	Level 0	Level 1	Level 2	Level 3	Rating
appropriate variation implementation score for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
2. Student Development					
<ul> <li>Self-care skills (practice and predictor)</li> <li>Social skills (practice and predictor)</li> <li>Social skills (practice and predictor)</li> <li>2.2 - Teaching community participation skills (all practices).</li> <li>Restaurant purchasing skills</li> <li>Grocery shopping skills</li> <li>Community experience and instruction skills (practice and predictor)</li> <li>Life skills (practice)         <ul> <li>Finance skills (practice)</li> <li>Community integration across multiple skills (e.g., social, domestic, public transportation, on-the-job) (practice)</li> </ul> </li> </ul>					



Essential Components	Implementation Levels				
Instructions: Place an X under the	Level 0	Level 1	Level 2	Level 3	Rating
appropriate variation implementation score for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
2. Student Development					
<ul> <li>Banking skills</li> </ul>					
2.3 - Employment skills and experiences.					
Providing school-based work					
<ul><li>experiences</li><li>Teaching how to complete job</li></ul>					
applications (practice)					
• Offering career awareness experiences (predictor)					
<ul> <li>Encouraging enrollment in occupational courses</li> </ul>					
(predictor)					
<ul> <li>Encouraging enrollment in vocational education (predictor)</li> </ul>					
Providing work-based experiences					



Essential Components	Implementation Levels				
Instructions: Place an X under the	Level 0	Level 1	Level 2	Level 3	Rating
appropriate variation implementation score for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
2. Student Development					
<ul> <li>Teaching job-specific employment skills in the community (practice)</li> <li>Teaching job-related social skills in the community (practice)</li> <li>Teaching on-the-job self-management skills (practice)</li> <li>Encouraging participation in paid and unpaid work experiences (e.g., work study, internships)</li> </ul>					
<ul> <li>2.4 - Teaching academic skills (all practices).</li> <li>Teaching academic skills using specific instructional strategies <ul> <li>Mnemonics</li> </ul> </li> </ul>					



Essential Components	Implementation Levels				
Instructions: Place an X under the	Level 0	Level 1	Level 2	Level 3	Rating
appropriate variation implementation score for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
2. Student Development	_	-		_	
<ul> <li>Peer-assisted instruction</li> <li>Self-management</li> <li>Technology</li> <li>Visual displays</li> <li>Teaching functional academics for students for whom it is appropriate</li> <li>Teaching functional math (e.g., purchasing skills, budgeting skills, money skills)</li> <li>Teaching functional reading</li> <li>Teaching self-determination skills (e.g., choice-making skills, goal-setting skills, decision- making skills, problem-solving skills)</li> </ul>					



Essential Components	Implementation Levels				
Instructions: Place an X under the appropriate	Level 0	Level 1	Level 2	Level 3	Rating
variation implementation score for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
3. Family Involvement					
3.1 - Facilitating parental					
involvement/engagement/support for					
postsenoor outcomes (predictor).					
3.2 - Encouraging parent involvement in					
transition planning (predictor).					
3.3 - Understanding student perceptions of					
positive family support (predictor).					
3.4 - Promoting positive parental					
expectations for postschool employment and					
education (predictor).					
3.5 - Implementing parental training in					
transition (practice).					



Essential Components	Implementation Levels				
Instructions: Place an X under the	Level 0	Level 1	Level 2	Level 3	Rating
appropriate variation implementation score for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
4. Program Structure					
<ul> <li>4.1 - Promoting opportunities for extended transition services (18-21 programs).</li> <li>4.2 - Promoting inclusion in general education.</li> <li>4.3 - Ensuring effective transition programs/services are in place.</li> <li>Transition planning methods</li> <li>Transition services</li> <li>Models of transition programs (e.g., Youth Transition Program [YTP], employment programs, career education, college training)</li> </ul>					
<ul> <li>4.4 - Promoting student supports (predictors).</li> <li>Understanding and encouraging informal support networks (e.g., family, friends)</li> <li>Time with friends outside of school</li> <li>Ensuring positive formal supports</li> </ul>					



Essential Components	Implementation Levels				
Instructions: Place an X under the	Level 0	Level 1	Level 2	Level 3	Rating
appropriate variation implementation score for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
4. Program Structure					
<ul> <li>Satisfaction with high school programs</li> <li>High occupational guidance and support (formal)</li> <li>4.5 - Promoting completion of exit requirements/high school diploma status (predictors). <ul> <li>High school diploma</li> <li>High scores on tests (e.g., academic, adaptive, functional)</li> <li>High GPA</li> </ul> </li> <li>4.6 - Implementing drop-out prevention is a factor of the school diploma i</li></ul>					



Essential Components		Im	plementation Lev	vels	
Instructions: Place an X under the appropriate	Level 0	Level 1	Level 2	Level 3	Rating
variation implementation score for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/ presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
5. Interagency Collaboration (predictors)	-	_	_	_	
<ul> <li>5.1 - Connecting students and families to outside agencies (from this predictor: assistance from multiple agencies).</li> <li>5.2 - Understanding critical elements of interagency collaboration. <ul> <li>Transition councils</li> <li>Interagency agreements</li> <li>Directories of services</li> <li>Local business partnerships</li> <li>Parent networks</li> <li>Procedures for school personnel to implement interagency collaboration</li> </ul> </li> </ul>					
5.3 - Implementing cross-disciplinary planning (both intra-agency and interagency collaboration).					

## Appendix B

Table B1: Secondary Transition Evidence-Based Practices Organized by the Taxonomy

Table B2: Operational Definitions for Evidence-Based Predictors for Postschool Success

Table B3: Evidence-Based Predictors by Postschool Outcome Area



# Table B1

Taxonomy Category	Instructional Strategy	Skill Taught
Student-Focused Planning	• Using Whose Future Is It Anyway?	Student Knowledge of Transition Planning
	<ul> <li>Using Check and Connect</li> <li>Using Computer-Assisted Instruction</li> <li>Using Self-Advocacy Strategy</li> <li>Using Self-Directed IEP</li> </ul>	Student Participation in IEP Meeting
	• Using Published	
Student Development	<ul> <li>Using Mnemonics</li> <li>Using Peer-Assisted Instruction</li> <li>Using Self-Management Instruction</li> <li>Using Technology</li> <li>Using Visual Displays</li> </ul>	Academic Skills
	<ul> <li>Using Backward Chaining</li> <li>Using Constant Time Delay</li> <li>Using Forward Chaining</li> <li>Using Progressive Time Delay</li> <li>Using Self-Monitoring Instruction</li> <li>Using System of Least-to-Most Prompts</li> <li>Using System of Most-to-Least Prompts</li> <li>Using Total Task Chaining</li> </ul>	Functional Life Skills
	<ul> <li>Using Community-Based Instruction</li> <li>Using Constant Time Delay</li> <li>Using Simulations</li> </ul>	Banking Skills
	Using Community-Based Instruction	Community Integration Skills

Secondary Transition Evidence-Based Practices Organized by the Taxonomy



Taxonomy Category	Instructional Strategy	Skill Taught
	<ul> <li>Using Computer-Assisted Instruction</li> <li>Using Constant Time Delay</li> <li>Using Response Prompting</li> <li>Using Video Modeling</li> <li>Using System of Least-to-Most Prompts</li> </ul>	Food Preparation and Cooking Skills
	<ul> <li>Using Computer-Assisted Instruction</li> <li>Using Community-Based Instruction</li> <li>Using Response Prompting</li> <li>Using System of Least-to-Most Prompts</li> </ul>	Grocery Shopping Skills
	<ul> <li>Using Response Prompting</li> <li>Using Video Modeling</li> </ul>	Home Maintenance Skills
	• Using Response Prompting	Laundry Skills
	<ul> <li>Using Response Prompting</li> <li>Using Constant Time Delay</li> </ul>	Leisure Skills
	<ul> <li>Using Community-Based Instruction</li> <li>Using Progressive Time Delay</li> <li>Using System of Least-to-Most Prompts</li> </ul>	Safety Skills
	• Using One-More-Than Strategy	Counting Money
	Using Extension of Career Planning Services After Graduation	Increased Finance Skills
	<ul> <li>Using Community-Based Instruction</li> <li>Using One-More-Than Strategy</li> <li>Using Progressive Time Delay</li> </ul>	Purchasing Skills

Taxonomy Category	Instructional Strategy	Skill Taught
	<ul> <li>Using Response Prompting</li> <li>Using Simulations</li> <li>Using System of Least-to-Most Prompts</li> </ul>	
	• Using Whose Future Is It Anyway?	Self-Determination Skills
	• Using Self-Determined Learning Model of Instruction	Goal Attainment Skills
	<ul> <li>Using Response Prompting</li> <li>Using Self-Management Instruction</li> <li>Using Simulations</li> <li>Using Self-Management Instruction</li> </ul>	Social Skills
	<ul> <li>Using Community-Based Instruction</li> <li>Using System of Least-to-Most Prompts</li> </ul>	Communication Skills
	<ul> <li>Using Community-Based Instruction</li> <li>Using Response Prompting</li> </ul>	Employment Skills
	<ul> <li>Using Computer-Assisted Instruction</li> <li>Using Constant Time Delay</li> <li>Using Self-Management Instruction</li> <li>Using System of Least-to-Most Prompts</li> </ul>	Job-Specific Skills
	• Using Mnemonics	Completing a Job Application
Family Involvement	• Using Training Modules	Parent Involvement in the Transition Process
Program Structure	• Using Check and Connect	Student Participation in the IEP Meeting
	• Using Community-Based Instruction	Banking Skills



Caxonomy CategoryInstructional Strategy		Skill Taught	
	• Using Community-Based Instruction	Grocery Shopping Skills	
	• Using Community-Based Instruction	Community Integration Skills	
	• Using Community-Based Instruction	Purchasing Skills	
Using Comm Instruction     Using Comm Instruction	• Using Community-Based Instruction	Safety Skills	
	• Using Community-Based Instruction	Communication Skills	
	• Using Community-Based Instruction	Employment Skills	
	• Using an Extension of Career Planning Services After Graduation	Increased Finance Skills	
Interagency Collaboration	• None	None	

*Note.* Secondary transition EBPs were identified by NSTTAC (Test, Fowler, et al., 2009). Descriptions of each EBP can be found at http://www.nsttac.org/content/evidence-based-practices-organized-skill-being-taught.



# Table B2

Operational Definitions for Evidence-Based Predictors of Postschool Success

Evidence-Based Predictor	Operational Definition
Career Awareness (Taxonomy Area: Student Development)	Learning about opportunities, education, and skills needed in various occupational pathways to choose a career that matches one's strengths and interests.
Community Experiences (Taxonomy Area: Student Development)	Activities occurring outside of the school setting, supported with in-class instruction, where students apply academic, social, and/or general work behaviors and skills.
Exit Exam Requirements/High School Diploma Status (Taxonomy Areas: Student Development, Program Structure)	Exit exams are standardized state tests, assessing single content area (e.g., Algebra, English) or multiple skill areas, with specified levels of proficiency that students must pass in order to obtain a high school diploma.
	Diploma status is achieved by completing the requirements of the state awarding the diploma, including the completion of necessary core curriculum credits.
Inclusion in General Education (Taxonomy Areas: Student Development, Program Structure)	Requires students with disabilities to have access to general education curriculum and be engaged in regular education classes with peers without disabilities.
Interagency Collaboration (Taxonomy Area: Interagency Collaboration)	A clear, purposeful, and carefully designed process that promotes cross-agency, cross-program, and cross-disciplinary collaborative efforts leading to tangible transition outcomes for youth.
Occupational Courses (Taxonomy Area: Student Development)	Individual courses that support career awareness, allow or enable students to explore various career pathways, develop occupational specific skills through instruction, and experiences focused on their desired employment goals.



Evidence-Based Predictor	Operational Definition
Paid Employment/Work Experience (Taxonomy Area: Student Development)	Work experience is any activity that places the student in an authentic workplace and could include work sampling, job shadowing, internships, apprenticeships, and paid employment.
	Paid employment can include existing standard jobs in a company or organization or customized work assignments negotiated with the employer, but these activities always feature competitive pay (e.g., minimum wage) paid directly to the student by the employer.
Parental Involvement (Taxonomy Area: Family Involvement)	Parents/families/guardian are active and knowledgeable participants in all aspects of transition planning (e.g., decision making, providing support, attending meetings, advocating for their child).
Program of Study (Taxonomy Area: Student-Focused Planning)	An individualized set of courses, experiences, and curriculum designed to develop students' academic and functional achievement to support the attainment of students' desired postschool goals.
Self-Care/Independent Living Skills (Taxonomy Area: Student Development)	Skills necessary for management of one's personal self-care and daily independent living, including the personal management skills needed to interact with others, daily living skills, financial management skills, and the self-management of healthcare/wellness needs.
Self-Determination/Self-Advocacy (Taxonomy Areas: Student-Focused Planning, Student Development)	The ability to make choices, solve problems, set goals, evaluate options, take initiative to reach one's goals, and accept consequences of one's actions.



Evidence-Based Predictor	Operational Definition
Social Skills (Taxonomy Area: Student Development)	Behaviors and attitudes that facilitate communication and cooperation (e.g., social conventions, social problem-solving while engaged in a social interaction, body language, speaking, listening, responding, verbal and written communication).
Student Support (Taxonomy Area: Program Structure)	A network of people (e.g., family, friends, educators, adult service providers) who provide services and resources in multiple environments to prepare students to obtain their annual transition and postsecondary goals aligned with their preferences, interests, and needs.
Transition Program (Taxonomy Area: Program Structure)	A program that prepares students to move from secondary settings (e.g., middle school, high school) to adult-life, utilizing comprehensive transition planning and education that creates individualized opportunities, services, and supports to help students achieve their postschool goals in education/training, employment, and independent living.
Vocational Education (Taxonomy Area: Student Development)	Vocational education is a sequence of courses that prepares students for a specific job or career at various levels from trade or craft positions to technical, business, or professional careers.
Work Study (Taxonomy Area: Student Development)	A specified sequence of work skills instruction and experiences designed to develop students' work attitudes and general work behaviors by providing students with mutually supportive and integrated academic and vocational instruction.

*Note.* Evidence-based predictor operational definitions from Rowe et al., 2013b. The Predictor Implementation School/District Self-Assessment, which includes operational definitions and characteristics of each evidence-based predictor, can be found at <a href="http://psocenter.org/content\_page\_assets/content\_page\_3/Predictor\_Self-Assessment.final\_06\_24\_13.pdf">http://psocenter.org/content\_page\_assets/content\_page\_3/Predictor\_Self-Assessment.final\_06\_24\_13.pdf</a>.



## Table B3

## Evidence-Based Predictors by Postschool Outcome Area

Predictor/Outcome	Education	Employment	Independent Living
Career Awareness	Х	Х	
Community Experiences		Х	
Exit Exam Requirements/High School Diploma Status		Х	
Inclusion in General Education	Х	Х	Х
Interagency Collaboration	Х	Х	
Occupational Courses	Х	Х	
Paid Employment/Work Experience		Х	Х
Parental Involvement		Х	
Parental Expectations	Х	Х	
Program of Study		Х	
Self-Advocacy/Self-Determination	X	Х	
Self-Care/Independent Living	X	Х	Х
Social Skills	Х	Х	
Student Support	X	Х	Х
Transition Program	Х	Х	
Vocational Education	Х	Х	
Work Study		Х	

*Note.* Evidence-based predictors of postschool success were identified by NSTTAC (Test, Mazzotti, et al., 2009). Predictor resources related to literature review procedures, research base, and operational definitions can be found at http://www.nsttac.org/content/predictor-resources.

