

Examining the Reliability and Validity of a Self-Determination Assessment for  
Transition Planning

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Christine Rae Peper

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Kristen McMaster, Adviser  
Stan Deno, Co-adviser

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## Dedication

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## Abstract

Transition services and programs for older students with disabilities were first mandated by the Individuals with Disabilities Education Act (IDEA) in 1990. An important component of transition planning and programming centers on the Individual Education Plan (IEP). It is vital for educators to know the extent to which students possess the self-determination skills they need to participate as active members of their IEP meetings. Assessments that are reliable, valid, easy to administer, and that provide information about students' strengths and weaknesses are needed to help educators plan effective instructional programming in the area of self-determination. The purpose of this study was to develop a self-determination measure that can be used for instructional planning in transition programs. Specifically, I developed the Peper Transition Planning Scale to assess each of the major self-determination domains described by Abery and Stancliffe (2003). Participants included 57 students enrolled in a transition center in a large Midwestern suburban school district. Test-retest reliability, internal consistency, and criterion validity in relation to the *Choicemaker Self-Determination Assessment* and the *Minnesota Self-Determination Skills, Attitudes, and Knowledge Scale: Family/Educator Edition* were established, as well as the measure's capacity to show growth over time. Adaptive ability and general intelligence were found to be important predictors of students' performance. This study shows initial support for the Peper Transition Planning Scale as a reliable and valid measure of self-determination. Recommendations for further validation of the Scale are provided, as well as suggestions for use in transition program planning.

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## Chapter I

### Examining the Reliability and Validity of a Self-Determination Assessment for Transition Planning

Prior to the passage of PL 94-142 in 1975, many individuals with disabilities lived in institutions where they received little to no formal education or vocational training. The passage of PL 94-142 moved many individuals with disabilities out of institutions and into community settings. This was a promising step; however, individuals with disabilities continued to face under- or unemployment, lacked independent living skills, had limited participation in recreation and leisure activities, and had few friends after they graduated high school (Field, 1996; Flexer, Baer, Luft, & Simmons, 2008; Hasazi, Gordon, & Roe, 1985). To address these problems, federal initiatives, in conjunction with school districts across the country, began to focus on transition planning and programming for individuals with disabilities.

Subsequent legislation has continued to improve the quality of life for individuals with disabilities. In 1990, the Individuals with Disabilities Education Act (IDEA) mandated that transition services be addressed on a student's Individualized Education Plan (IEP) beginning at age 16, and that students be invited to participate in this planning. Soon after, the Rehabilitation Act Amendments of 1992 emphasized the rights of individuals to make choices about their lives, state their preferences and goals, live as independently as possible, and possess self-determination skills (Field, 1996). Between 1990 and 1996, The U.S. Department of Education, Office of Special Education and

Rehabilitation Services (OSERS) supported projects that would improve the self-determination skills of students and adults with disabilities (Field & Hoffman, 2002). Specifically, this initiative supported the development of system-wide programs that encourage student and consumer decision-making (Ward & Kohler, 1996). Programs supported through this initiative led to improvements in federal legislation to address self-determination and involvement in transition programming and planning for individuals with disabilities.

The most recent reauthorization of IDEA (2004) clarified and defined transition services for students aged sixteen and older as a “results-oriented process that is focused on improving the academic and functional achievement of the child” (Etscheidt, 2006, p. 28). Four essential elements of the transition process were identified. First, the transition planning process should be student-oriented and directed. IEP teams should take into account student preference and interest when determining IEP goals and objectives. Second, the transition plan should be focused on the future, with goals that lead towards specific outcomes in each of the transition areas. Third, transition planning should be delivered consistently by both school staff and transition providers. Finally, student progress should be monitored and data should be collected to ensure that students are meeting their IEP goals and objectives (Etscheidt; Flexer et al., 2008). As mentioned above, a major component of a student’s transition planning and programming centers on the IEP. Special education teachers are responsible for developing and monitoring progress on the transition plan, with assistance from the student, family, regular education teacher, and relevant adult agencies.

*Student Involvement in Transition Planning*

Since IDEA (1990) mandated transition programming and planning, researchers have investigated the extent to which students were participating in their transition planning meetings. Johnson, Stodden, Emanuel, Luecking, and Mack (2002) investigated special education research and policies after the passage of IDEA 1997 and identified several challenges facing secondary special education as these changes have been implemented. Among the greatest of those challenges is that many students still do not participate in their IEP meetings. Martin, Marshall, and Sale (2004) studied 393 IEP meetings, which included 1,638 participants over a 3-year period. Martin et al. found that 70% of students attended their IEP meetings; however, many were inactive participants, and “students knew the reasons for the meetings, knew what to do at the meetings, talked at the meetings, felt comfortable saying what they thought, talked about strengths and needs, understood what was said, and felt good about the meeting less than any other IEP meeting participant” (p. 293). Additionally, Martin et al. found that the parents and special education teachers talked more about students’ strengths and interests than the student themselves did. Overall, it appeared that many students in this study were unsure of their role in their own transition planning meetings.

Martin, Van Dycke, Greene, et al. (2006) then observed 109 IEP meetings for middle and high school students with disabilities to further determine the extent of student participation. Martin, Van Dycke, Greene, et al. found that special education teachers called 92% of the meetings to order. Moreover, special education teachers dominated discussion throughout the IEP meetings, talking 51% of the time. Students

were in attendance in 90% of the meetings but only participated in discussion 3% of the time, only slightly higher than no conversation at all. Findings from the above studies converge on an important point: students, although in attendance at their IEP meetings, do not always actively participate in their transition IEP meetings. Yet, transition plans must be designed to meet the individual needs of each student (Etscheidt, 2006). To truly individualize the transition plan and services, the individual should be actively involved. Without active participation in their IEP meetings, many students will enter the adult world ill equipped to face the challenges that await them (Flexer et al., 2008).

Instruction in self-determination may be one way to encourage active participation in IEP planning meetings (Hughes & Eisenman, 1996). Through increased awareness and improved self-determination skills, students may experience being important and contributing members of the IEP team and thus, may be more willing to participate in their IEP meetings. To increase student participation in IEP meetings, researchers have suggested that students receive direct instruction in developing their self-determination skills (Wehmeyer, Palmer, Soukup, Garner, & Lawrence, 2007). In fact, Thoma, Nathanson, Baker, and Tamura (2002) argued that self-determination was one of the most important set of skills in which students should receive instruction.

### *Self-Determination*

Wehmeyer (1992) defined self-determination as “the attitudes and abilities required to act as the primary causal agent in one’s life and to make choices regarding one’s actions free from undue external influences or interferences” (p. 305). Today, self-determination skills are considered essential as students transition from school to adult

life (Field, 1996; Morningstar, Kleinhammer-Tramill, & Lattin, 1999). Self-determination skills have been correlated with higher employment rates for students with learning disabilities and have been linked to better post-school outcomes for individuals with disabilities (Flexer et al., 2008).

How, then, do students with disabilities acquire self-determination skills? As suggested by Wehmeyer (1992), teachers need to explicitly encourage students to practice making choices, stating their preferences, and building self confidence, and to use these skills throughout various daily activities rather than in isolation. Further, if students are expected to be responsible for their IEP meetings and their transition goals, objectives, and activities that come out of these meetings, they should be provided with the resources and tools to help plan their transition and carry out these plans (Powers et al., 2005). One such way to empower students to participate in their own transition planning is to directly teach self-determination skills. A growing body of research (Allen, Smith, Test, Flowers, & Wood, 2001; Arndt, Konard, & Test, 2006; Martin, Van Dycke, Christensen, Greene, Gardner, & Lovett, 2006; Snyder, 2002; Snyder & Shapiro, 1997; Test & Neale, 2004) supports the effectiveness of direct instruction in improving students' self determination and involvement in their transition planning.

### *Assessing Self Determination*

*Existing measures.* Given the general consensus that self-determination skills are an important component of transition instruction, it is important that teachers have reliable and valid ways to assess these skills, to determine students' strengths and weaknesses in order to plan effective instructional programming, to monitor their

progress in response to that programming, and to evaluate the effectiveness of that instruction. There are several self-determination assessments in use today, including the *Arc's Self-Determination Assessment* (Wehmeyer & Kelchner, 1995), the *Self-Determination Knowledge Scale* (Hoffman, Field, & Sawilowsky, 2004), the *Choicemaker Self-Determination Assessment* (Martin & Marshall, 1997), the *American Institutes for Research Self-Determination Assessment* (Wolman, Campeau, DuBois, Mithaug, & Stolarski, 1994), and the *Minnesota Self-Determination Scales* (Abery, McGrew, & Smith, 2000). Each assessment measures and reports self-determination skills in a different way (Flexer et al., 2008). These existing measures either have limited technical adequacy or limited instructional validity (Martin & Marshall, 1997; Wehmeyer & Kelchner, 1995) and further development of self-determination measures is needed.

*Developing new measures.* In developing new self-determination measures, it is important to consider how to establish their technical soundness. Gall, Gall, and Borg (2003) identified six criteria for judging the quality of a test: objectivity, standard conditions of administration and scoring, standards for interpretation, fairness, validity, and reliability. Objectivity refers to the degree of bias during the administration of the test. The administrator of the test needs to be unbiased in both the administration and scoring of the test; otherwise, the results of the test may be skewed and not produce accurate results. Gall et al. (2003) recommended each assessment have a manual that outlines both the administration guidelines, as well as protocols for scoring. They also emphasized that test scores by themselves are not meaningful; rather, the scores should be related to an accepted criterion measure. Fairness refers to the extent to which

members from different groups should earn the same score on items from the test. If fairness is in question, the test is said to suffer from differential item functioning, meaning individuals of the same ability but from different groups (e.g., male and female) do not have the same chance of earning the same score on the test. In this study, the concepts of objectivity, standardization, and fairness will be considered as important criteria in evaluating the transition planning assessment.

Reliability refers to the consistency of the measure (Gall et al., 2003). There are several forms of reliability including test-retest, alternate-form, inter-rater reliability, and internal consistency. Test-retest reliability is estimated by administering the same instrument on two separate occasions. This approach assumes no substantial changes have occurred between the administrations of both tests. Internal consistency examines the reliability of individual items to determine the overall reliability of the assessment. The reliability of scores obtained from the assessment in this study will be evaluated primarily in terms of test-retest reliability and internal consistency.

Reliability is essential to validity; however, just because a test has good reliability does not mean it is a valid measure (Gall et al., 2003). Researchers must be able to draw conclusions and inferences about the measures. Messick (1995) defined validity as, “an evaluative summary of both the evidence for and the actual, as well as potential, consequences of score interpretation and use” and that “This comprehensive view of validity integrates considerations of content, criteria, and consequences into a construct framework for empirically testing rational hypotheses about score meaning and utility” (p. 742). Simply put, test scores by themselves are neither valid nor invalid;

rather, how those scores are interpreted determines validity or invalidity of a test measure. This study will primarily focus on criterion-related validity and sensitivity to progress made in a relatively short time-period as a first step to determining the validity of measures.

*Relation of adaptive ability and intelligence to self-determination.* A secondary issue addressed in this study is whether students' performance on measures of self-determination is mediated by their overall adaptive abilities and/or IQ. Individual differences in adaptive ability and IQ are known to be strongly related to personal control and choice making (Kishi, Teelucksingh, Zollers, Park-Lee, & Meyer, 1988; Stancliffe, 1997; Stancliffe, Abery, & Smith, 2000). Furthermore, adaptive behavior has been found to be strongly correlated with the self-determination competencies of skills and knowledge (Stancliffe et al., 2000). Stancliffe et al. (2000) suggested that the relationship between self-determination and adaptive abilities exists because the more independence a student displays, the more opportunities the student is given to show their independence. Individuals who participate in activities as independently as possible are more likely to have personal control over their decisions than those who rely on others to make their decisions (Abery & Stancliffe, 2003).

Whereas we would expect adaptive ability and IQ to be related to self-determination, a self-determination assessment would ideally capture more than just these constructs. For individuals with disabilities, self-determination is important regardless of functioning level; all individuals should be able make choices and have some control over their lives. As suggested by Kennedy (1993), self-determination may mean



something different for every individual. Thus, in developing an assessment of self-determination, it would be useful to know the extent to which adaptive skill and IQ account for variance in student outcomes.

### *Significance*

This study builds upon the literature related to self-determination theory and assessment. Self-determination is one of the most important areas in which students with disabilities should receive instruction (Thoma et al., 2002); a critical component of effective instruction is assessment that can be used to evaluate and modify that instruction when needed. Thus, in this study, I attempt to create a measure that educators can use to assess student performance in competencies such as goal setting, decision making, problem solving, personal advocacy, and communication--all areas that are essential in transition programming and planning and the IEP process (Flexer et al., 2008; Grigal, Neubert, Moon, & Graham, 2003; Test, Fowler, Brewer, & Wood, 2005; Van Reusen & Bos, 1994; Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000; Wood, Fowler, Uphold, & Test, 2005).

Further, as is suggested in the literature, students' knowledge of available resources in the community, basic understanding of civil rights and responsibilities, and understanding of their disabilities are often limited (Abery, Rudrud, Arndt, Schauben, & Eggebeen, 1995; Eckes & Ochoa, 2005; Flexer et al., 2008). The measure developed as part of this study is designed to capture students' strengths and areas of need in these areas. Finally, students who participate in self-determination classes and the transition planning process have shown greater degrees of self-efficacy and are more likely to

believe they can reach their goals (Wehmeyer & Lawrence, 1995; Wehmeyer, Palmer, et al., 2000); having reliable and valid ways to assess students' attitudes and beliefs may enhance educators' instructional planning designed to improve their self-efficacy, and ultimately, their self-determination.

### *Purpose*

The purpose of this study is to develop a self-determination measure that can be used for instructional planning in transition programs. Specifically, I have developed a measure called the Peper Transition Planning Scale that is designed to assess each of the major self-determination domains described by Abery and Stancliffe (2003). Specific research questions include the following: (1) What is the technical adequacy of the Peper Transition Planning Scale in terms of (a) test-retest reliability, (b) internal consistency (as measured by relations between individual questions and their domain subscales), (c) criterion-related validity (as compared to the *Choicemaker Self Determination Assessment* and the *Minnesota Self-Determination Skills, Attitudes, and Knowledge Scale: Family/Educator Edition*), and (d) capacity to show growth over time? (2) To what extent are self-determination skills mediated by individuals' overall (a) adaptive ability, as measured by the *Adaptive Behavior Assessment System* (Harrison & Oakland, 2003) and (b) intelligence as measured by the *Wechsler Adult Intelligence Scale IV* (Wechsler, 2008)?

## Chapter II

### Assessing Self Determination: A Review of the Literature

Educational researchers and practitioners have emphasized that self-determination skills are an important component of transition planning (Field, 1996; Morningstar et al. 1999), and that these skills can be directly taught to individuals with disabilities (Flexer et al., 2008; Grigal et al., 2003; Test, Fowler, Brewer, et al., 2005; Van Reusen & Bos, 1994; Wehmeyer, et al., 2000; Wood et al., 2005). Thus, it is important that we have reliable and valid ways to assess these skills, to determine students' strengths and weaknesses in order to plan effective instructional programming, to monitor student progress in response to that programming, and to evaluate the effectiveness of instruction and make modifications when necessary so that students are able to participate to the maximum extent possible in their transition planning.

The purpose of this literature review is threefold: (1) to determine components of self-determination competencies that have been theoretically and/or empirically identified as critical to the assessment of self-determination, particularly for instructional planning; (2) to identify existing measures of self-determination, the extent to which they include critical components of self-determination, and the research supporting their technical adequacy; and (3) to identify directions for further research in the development of self-determination assessment.

#### *Components of Self-Determination*

To identify components critical to the assessment of self-determination, I looked to the literature to (a) define self-determination, and (b) provide a theoretical framework

to guide selection of those components. Then, I examined empirical research that supports the selected components. The relevant literature is summarized and discussed below.

### *Self Determination Defined*

Researchers have offered a variety of definitions of self-determination and identified a range of components. For example, Field and Hoffman (1994) defined self-determination as, “the ability to identify and achieve goals based on a foundation of knowing and valuing oneself” (p. 174). Wehmeyer (1992) identified autonomy, self-regulation, psychological empowerment, and self-realization as important components of self-determination.

Nirje (1972) offered another definition of self-determination: “Self-determination is a critical component of the normalization principle. Choices, wishes, and aspirations of people with disabilities must be considered when actions affect them” (Nirje, 1972, as cited in Flexer et al., p. 343, 2008). Martin and Marshall (1995) identified seven components of self-determination including self-awareness, self-advocacy, self-efficacy, decision making, independent performance, self-evaluation, and adjustment.

Many definitions have also focused on the amount of personal control individuals have over the decisions they make in their lives (Abery & Stancliffe, 2003). From this personal-control perspective, individuals with disabilities who make more decisions regarding their life are thought to be more self-determined. Yet, as Abery and Stancliffe point out, many individuals with disabilities do not have the control or desire to make decisions regarding their lives.

An alternative perspective is that individuals with disabilities may decide whether or not they want to make decisions regarding their life. Like individuals without disabilities, individuals with disabilities may view some decisions in their lives as not as important as others and therefore may allow others to make those unimportant decisions for them (Stancliffe, Abery, & Smith, 2000). When considered this way, self-determination is more difficult to conceptualize than simply “yes” a person has control over his/her life, or “no” they do not.

#### *A Tripartite Ecological Theory of Self Determination*

To capture this more nuanced view of self-determination, Abery and Stancliffe (2003) proposed a tripartite-ecological theory of self-determination. In this theory, they define self-determination as “individuals exercising the degree of control they desire over those areas of life they consider important” (p. 44). Specifically, Abery and Stancliffe suggested that self-determination involves (1) exercise of control, (2) desired level of control, and (3) importance, and that self-determination is an intersection of all three of these elements.

First, exercise of control involves how much control an individual chooses to have over his or her own life. Some individuals take total control, whereas other individuals take no control; most, however, do not fall on either extreme of this continuum but rather somewhere in between. Second, an individual’s desired level of control also falls on a continuum. Some individuals want total control over their lives, whereas others desire little to no control. Finally, importance can be defined as self-

determined individuals making decisions in their lives in the areas they think are important.

Abery and Stancliffe (2003) suggest that self-determination is determined by the relations among importance, desired control, and exercised control. Individuals with the greatest self-determination decide what is important to them and decide how much control they want over that situation. Further, each of these three components can be influenced by a person's environment and their culture. For example, individuals with disabilities who have parents and siblings who go to college might view college as important, whereas an individual who did not have parents who attended college may not value a college education.

#### *Self-Determination Competencies*

Abery and Stancliffe (2003) view self-determination as both a person's abilities and the extent to which the different environments the person is associated with (i.e. school, home, work) will support the idea of self-determination. As suggested by Field (1996), Stancliffe and Abery's perspective is grounded in an ecosystems framework (Bronfenbrenner, 1988) that includes microsystems, exosystems, mesosystems, and macrosystems. In their tripartite-ecological theory of self-determination, Abery and Stancliffe identified three domains of self-determination competencies: (1) skills, (2) knowledge, and (3) attitudes and beliefs that are at the center of this system. In each of the domains they identified subskills. The domain of "skills" includes goal setting, choice- and decision-making, self-regulation, problem solving, personal advocacy, communication, social, and independent living. The domain of "knowledge"

encompasses declarative knowledge, procedural knowledge (which includes resources, rights and responsibilities, and identification of options), and self-knowledge. Finally, the domain of “attitudes and beliefs” includes locus of control, self-confidence/self-efficacy, self-esteem/self-acceptance, determination, feeling valued by others, and positive outlooks.

For this review, the subskills of the domains listed above were prioritized to include those areas most closely related to transition programming. Specifically, subskills related to IEP participation and development with a strong empirical basis were included. Those items reviewed in the skills domain include the following: goal setting, decision making, problem solving, personal advocacy, and communication. In the knowledge domain laws, rights, and responsibilities, resources and systems, and self-knowledge are reviewed. Finally, in the domain of attitudes and beliefs, sense of determination, locus of control, and self-esteem/self-concept are reviewed. Each of these domains is described in more detail below.

### *Skills*

*Goal setting.* Goal setting has been defined simply as something an individual wants to accomplish (Locke, Saari, Shaw, & Latham, 1981), and more completely as a vision that an individual has about what he/she wants to achieve and the standards they set for achieving desired outcomes (Abery & Stancliffe, 2003). Goal setting is considered an essential component of self-determination (Abery & Stancliffe), and is supported by research demonstrating that it can improve productivity (Flexer, Newberry, & Martin, 1979), school achievement (Fuchs & Fuchs, 1986) and academic performance (Graham,

Schwartz, & MacArthur, 1995). Researchers (e.g., Flexer et al., 2008; Grigal, et al., 2003; Van Reusen & Bos, 1994; Wehmeyer, Palmer, et al., 2007) have suggested that students need to be involved in their goal-setting, especially as it relates to their IEP meetings, because otherwise they may become passive members of the IEP team, and ultimately, passive members in their education. Flexer et al. specifically suggested that students should be able to answer questions at their IEP meetings related to their desired IEP goals, their progress on their IEP goals, and how to plan to reach new goals. They emphasized that students should learn to take an active role in their IEP meetings in high school, and learn to set goals that are realistic and obtainable, because once students enter post-secondary education or the workforce, they will primarily be responsible for their own education or employment (Pascarella & Terenzini, 1991).

*Choice- and decision-making.* Choice- and decision-making also fall under the “skills” domain (Abery & Stancliffe, 2003). Choice-making instruction allows students to take control of certain parts of their lives (Gothelf, Crimmins, Mercer, & Finocchiaro, 1994). Kern et al. (1998) conducted a literature review on choice making for students with disabilities and found that choice making was effective for both decreasing undesirable behaviors and increasing desired behaviors. Researchers have found choice making to benefit individuals with disabilities in a variety of ways, including increasing student productivity (Martin, Mithaug, Oliphint, Husch, & Frazier, 2002; Parsons, Reid, Reynolds, & Bumgarnder, 1990), improving students’ self-determination when given choices throughout the day (Brown, Belz, Corsi, & Wenig 1993, and increasing students’ question-asking during group home tours (Foxx, Faw, Taylor, Davis, & Fulia, 1993).



Choice making is also an essential component of the IEP planning process (Flexer et al., 2008). Students need to not only be able to identify their IEP goals but to aid their IEP teams by making realistic choices about what they want their desired future goals or outcomes to center around. Once students are allowed the opportunity to understand the IEP process, they can start to make meaningful choices related to their goals. Providing students opportunities to make choices may improve their participation in their own transition planning (Wood et al., 2005), which may lead to students' increased ownership in reaching their educational goals (Wehmeyer, Agran, & Hughes, 1998).

*Problem solving.* Problem solving is another important component of self-determination; however, many students with disabilities do not possess such skills (Wehmeyer & Kelchner, 1995). Yet, problem-solving skills can greatly increase a student's independence (Agran & Wehmeyer, 1999; Stainback & Stainback, 1996) and are important for successful school outcomes (Wehmeyer, Agran, & Hughes, 2000). Wehmeyer, Palmer, et al., (2000) found that, when directly taught to problem solve, students were better able to set and reach their goals, participate in the decision making process, and self-monitor their learning. Similarly, Agran, Blanchard, Wehmeyer, and Hughes (2002) found that students with varying disabilities can be directly taught problem-solving skills to achieve self-selected goals. Further, researchers taught students with mental retardation to solve problems related to their employment and to increase their interactions with their non-disabled co-workers (Agran, Madison, & Bown, 1995; Hughes & Rusch, 1989).

*Personal advocacy.* Another important component in the “skills” domain of self-determination is self advocacy or personal advocacy. The term “self advocacy” has many different definitions; in fact, Test, Fowler, Wood, Brewer, and Eddy (2005) identified over 20 definitions including, “Self-advocacy includes the realization of strengths and weaknesses, the ability to formulate personal goals, being assertive, and making decisions” (Martin, Huber-Marshall, & Maxson, 1993, p. 56, in Test, Fowler, Wood, et al.). Test, Fowler, Wood, et al. identified four components of self advocacy, including knowledge of self, knowledge of rights, communication, and leadership. Van Reusen, Bos, Schumaker, and Desheler (1994) defined self advocacy as, “an individual’s ability to effectively communicate, convey, negotiate or assert his or her own interests, desires, needs, and rights. It involves making informed choices and taking responsibility for those decisions” (p. 1).

Through their review of literature, Test, Flower, Brewer, et al. (2005) concluded that individuals with a variety of disabilities can learn to self-advocate. Furthermore, with respect to specific skills, researchers have shown that the development of self advocacy is critical for students as they transition to adulthood (Fielder & Danneker, 2007). Students who receive self-advocacy training are more involved in their IEP meetings and have a greater understanding of their areas of strength and need , as well as their accommodations (Eisenman, Chamberlin, & McGahee-Kovac, 2005; Mason, McGahee-Kovac, & Johnson, 2004). When students are systematically taught how to self-advocate, given routine feedback from their teachers, and given the opportunity to practice their self-advocacy skills, they can not only become more effective at self-

advocating but they can learn to generalize the skills they learn in the classroom to their personal lives (Aune, 1991; Durlak, Rose, & Bursuck, 1994).

*Communication.* Test, Fowler, Brewer, et al. (2005) identified four essential elements of self advocacy including communication, which is also another sub-skill in the “skills” component of self-determination (Abery & Stancliffe, 2003). Of the 20 studies reviewed by Test, Fowler, Brewer, et al., all studies included communication skill development as an essential component of self advocacy. Further subskills identified as important to communication include negotiation, persuasion, and compromise (Wehmeyer & Lawrence, 1995), body language, listening skills (Nezu, Nezu, & Arian, 1991; Van Reusen, et al.1994) and assertiveness (Nezu et al). Researchers examined an assertiveness and problem solving curriculum for individuals with disabilities and found that a combined program continuing both assertiveness and problem solving increased assertiveness in individuals with disabilities (Bregman, 1984; Nezu et al.). Assertiveness is a particularly essential component of communication (Flexer et al., 2008). Students with disabilities need to practice their assertive skills as part of the IEP meeting process so they begin to feel comfortable asserting themselves in their transition planning meetings (Martin, Van Dycke, & Christensen et al., 2006; Van Reusen & Bos, 1994).

### *Knowledge*

The second domain identified in Abery and Stancliffe’s (2003) self-determination competencies is knowledge. Knowledge of laws, rights, and responsibilities; knowledge of resources and systems; and self-knowledge are reviewed below.

*Knowledge of laws, rights, and responsibilities.* An important component of the knowledge domain is students' understanding of their rights (Test, Fowler, Brewer, et al., 2005). Students need to be aware of their rights, not only as a citizen but as a person with a disability. Researchers have found that when students are not aware of their rights, they will not know when their rights are violated (Flexer et al., 2008), but when students received direct instruction in identifying examples of discrimination, they were able to identify when a person's civil rights were being violated (Sievert, Cuvo, & Davis, 1998). Further, after receiving direct instruction in the components of ADA, students in a post-secondary setting increased their knowledge of services under ADA and were more comfortable asking for accommodations from their professors and employers (Rumrill, 1999).

Under IDEA, public schools are required to provide students with special education services; however, when a student exits public school and attends a post-secondary institution, they will no longer have the IEP team guiding and assisting them. After participating in curriculum designed to increase their participation in student-led IEP meetings, students had a better understanding of their disabilities, rights, and the accommodations they need to be successful (Mason, McGahee-Kovac, Johnson, & Stillerman, 2002). As suggested by Flexer et al. (2008), individuals' awareness of their rights and guarantees under the law will help ensure that others do not take advantage of them.

*Knowledge of resources and systems.* The next component in the "knowledge" domain includes knowledge of resources, which can include awareness of resources in

the community such as rehabilitation services and county social workers, as well as awareness of activities such as bowling, sporting events, and community parks (Flexer et al., 2008). “Due to the incremental evolution of residential services for persons with disabilities, today’s service systems has become a “crazy quilt” of programs and philosophies” (Flexer et al., p. 296). Person-centered planning can be one way to assist the student and his/her family in realizing their dreams for the student, as well to promote awareness of the sometimes confusing array of community supports and services (Holburn & Vietze, 2002).

Unlike high school, many services available to individuals once they transition to adult services are eligibility-based (Flexer et al., 2008) meaning individuals may need to show proof of disability and meet certain eligibility criteria before they can gain access to a service or resource. As a result of this important distinction, it is imperative that students with disabilities have an awareness of services available to them in the community (Flexer et al.). However, as many students prepare to leave high school and transition to adult services, they often have little knowledge and awareness of what services are available to them in their community (Abery, McGrew, & Smith, 1995, as cited in Abery & Stancliffe, 2003). When students receive instruction in what educational and career opportunities are available to them in their community, they can increase their knowledge of these resources (Phillips, 1990).

*Self-knowledge.* Test, Fowler, Brewer, et al. (2005) found that students’ self-knowledge –their understanding of their disabilities, strengths, weaknesses, and interests-are important components of self-advocacy. Many students are not aware of their

disability because the subject is uncomfortable for their families, caregivers, and teachers (Flexer et al., 2008); however, when students were exposed to more information about their disability, their perceptions about themselves and their disabilities improved (Eisenman & Tascione, 2002; Phillips, 1990) and they had a better understanding of the characteristics of their disabilities (Mason et al., 2002). Having a strong understanding of both personal and educational interests is an important component of the IEP process. For example, when individuals with disabilities received direct instruction in running their IEP meetings, they were able to identify more goals they would like to work on and were able to share their personal interests more often with their team (Allen, et al., 2001; Snyder & Shapiro, 1997; Van Ruesen & Bos, 1994).

#### *Attitudes and Beliefs*

The third domain in Abery and Stancliffe's (2003) self-determination competencies is attitudes and beliefs. Specifically, determination, locus of control, and self-esteem/self-concept are reviewed below.

*Determination.* Determination can be defined as persistence (Flexer et al., 2008) and the intensity with which an individual works on achieving his/her goals (Locke & Latham, 1994, as cited in Abery & Stancliffe, 2003). Individuals with a high level of determination will persevere, even when faced with obstacles, whereas individuals with low levels of determination may easily give up when faced with a challenge or road-block (Abery & Stancliffe). When faced with a challenging goal or an obstacle they need to overcome, many individuals increase their efforts to persevere over the challenge (Bandura, 1986). Through participation in transition planning, students have the

opportunity to gain knowledge of their abilities and limitations and develop a sense of both independence and persistence (deFur, Getzel, & Trossi, 1996).

*Locus of control.* Another competency in the domain of attitudes and beliefs is locus of control. Locus of control is considered to be the belief that people have influence over what happens to them in their lives (Smith & Mihans, 2009). Individuals are said to have either an internal or external locus of control. A person who accepts both the positive and the negative outcomes of their behavior is considered “internal”; whereas someone who views consequences as “luck” or blames others for their actions is considered “external” (Smith & Mihans). Research supports locus of control as an important component to student success (Anderson, Hattie, & Hamilton, 2005; Bursik & Martin, 2006; Gifford, Briceno-Perriott, & Mianzo, 2006). Researchers have found that female students who participated in self-determination training increased both their locus of control and self-efficacy. Further, students who were more involved in their transition planning meetings experienced a greater degree of self-efficacy and were more likely to believe they could reach their goals (Wehmeyer & Lawrence, 1995; Wehmeyer, Palmer, et al., 2000).

*Self-esteem/self-concept.* The final competency reviewed in the domain of attitudes and beliefs is comprised of two closely related concepts: self-esteem and self-concept. Branden (1994) defined self-esteem as “confidence in our ability to think, confidence in our ability to cope with the basic changes of life; and wants, achieve our values, and enjoy the fruits of our efforts” (p. 4). Cosden, Elliott, Noble, and Kelemen (1999) defined self-concept, “as a cognitive understanding about one’s abilities” (p. 280).

Self-esteem is essential for individuals with disabilities to possess (Ezell & Klein-Ezell, 2003) and needed for general well-being (James, 1980). Wadman, Durkin, and Conti-Ramsden (2008) suggest that global self-esteem is permanent and becomes more stable during adolescence (Trzesniewski, Donnellan, & Robins, 2003). Students with higher self-esteem perform better academically (Marsh, 1990); however, females often experience lower self-esteem than males (Bryan & Petrangelo, 1989; Pryor, 1994; Wadman et al.). Mason et al. (2004) found that students who were involved and prepared for their IEP meetings had a better understanding of their disability and the accommodations they needed to be successful in all areas of their life. As suggested by Field, Hoffman, and Posch (1997) self-concept is a building block of self-determination. Individuals cannot be self-determined if they do not understand their disabilities and are not aware of their strengths, as well as their areas of need.

#### *Existing Measures of Self-Determination*

Abery & Stancliffe's (2003) tripartite-ecological theory of self-determination, and the supporting evidence discussed above, provide a useful framework for evaluating existing measures of self determination. In this section, I describe existing measures of self-determination and the research supporting their technical adequacy. I then discuss the extent to which these assessments include the critical domains of self-determination described above.

There are several self-determination assessments in use today, including the *Arc's Self-Determination Assessment* (Wehmeyer & Kelchner, 1995), the *Self-Determination Knowledge Scale* (Hoffman et al., 2004), the *Choicemaker Self-Determination*



*Assessment* (Martin & Marshall, 1997), the *American Institutes for Research Self-Determination Assessment* (Wolman et al., 1994), and the *Minnesota Self-Determination Scales* (Abery, McGrew, & Smith, 2000). Each assessment measures and reports self-determination skills in a different way (Flexer et al., 2008). The measures discussed below were included in this review because researchers have examined their technical adequacy and results have indicated that they can produce both reliable and valid measures of self-determination.

#### *The Arc's Self-Determination Scale*

*Description.* The purpose of the *Arc's Self-Determination Scale* (Wehmeyer & Kelchner, 1995) is to assess self-determination skills through students' self-report of their strengths, weaknesses, and areas of need related to the domain of self-determination. *The Arc's Self-Determination Scale* can be used to assess overall self-determination skills or as part of a student's three-year special education re-evaluation. The scale contains 72 items divided over four sections and includes questions related to autonomy, self-regulation, psychological empowerment, and self-realization. Autonomy refers to an individual's ability to make their own decisions, without interference or influence from others. A self-regulated individual will act and respond to changes in their environment. Psychological empowerment refers to an individual's belief that they can achieve their goals and have control over a situation. Individuals who have an understanding of their strengths and limitations are said to be self-realized (Wehmeyer & Kelchner, 1995).

In the first section, autonomy, students are asked to describe how they would best act in a variety of situations. Students' responses are scored on a Likert-type scale,

ranging from zero points (I do not even if I have the chance) to three points (I do every time I have the chance). In the second section, self-regulation, students are asked to complete two different tasks. First, students write responses to a variety of real-life situations. A student would earn a score of zero if they do not address the problem or offer no response to the problem. A student would earn a score of two if they identify both examples of compromise and negotiation in their response. Additionally, students are asked to identify their goals and the steps required to meet their goals. Students earn a score of zero if they fail to identify any goals or steps; to earn a score of three, students need to identify their goals and three or four steps required to meet those goals. In the third section, psychological empowerment, students choose the answer that best describes themselves when presented with two choices. Answers that do not reflect psychological empowerment earn a score of zero. For example, if the student chooses “I usually do what my friends want” over, “I tell my friends if they are doing something I don’t want to do” they would earn a score of zero. In the final section, self-realization, students are asked to respond “agree” or “disagree” to questions about themselves. Answers that do not reflect a strong understanding of personal strengths or weaknesses earn a score of zero. According to Wehmeyer and Kelchner (1995), once the scores are converted, teachers and students can use the information to look for areas of strength and need related to self-determination.

*The Arc’s Self-Determination Scale* manual provides a thorough description of scale construction and development, administration, scoring, and interpretation of data (Wehmeyer & Kelchner, 1995). The assessment was conceptualized as a way for

individuals with disabilities to provide a self-report indicator of their self-determination skills. Although Wehmeyer and Kelchner acknowledged the limitations associated with self-report measures and devoted a chapter to scale construction and development to overcome some of these limitations, it is difficult to assess the objectivity of the scales because self-reported data are often inaccurate. Students may see themselves as having more self-determination skills than they actually possess, or report answers that are inconsistent with their actual behaviors; therefore, results from the scale may be skewed. Only in the self-regulation/goal setting and task performance section are students asked to provide examples from their own life. Additionally, *The Arc's Self-Determination Scale* includes a variety of response methods, including Likert-type responses, story completion, and fill-in-the-blank. Some students may find the variety of response methods confusing and difficult to follow.

*Technical adequacy.* Field tests were completed by Wehmeyer (1996) before the final version of *The Arc's Self-Determination Scales* was released. In the pilot test, 261 students with cognitive disabilities from three states participated. Wehmeyer investigated the internal consistency of *The Arc's Self-Determination Scale* and found an overall reliability of .90. Reliability in the subsections included: autonomy (.90), psychological empowerment (.73), and self-realization (.62). Reliability for the self-regulation section was not calculated because this section required students to answer open-ended questions (Wehmeyer, 1996). Criterion-related validity was established with the *Nowicki-Strickland Internal-External Scale* (Nowicki & Duke, 1974), the *Intellectual Achievement Responsibility Questionnaire* (Crandall, Katkovsky, & Crandall, 1965), and the *Self-*

*Efficacy Scale* (Sherer et al., 1982). Criterion validity coefficients ranged from  $r = .16$  to  $r = .47$ .

*The Self-Determination Assessment Battery*

*Description. The Self-Determination Assessment Battery and Users Guide* (Hoffman et al., 2004) contains five instruments including Self-Determination Knowledge Scale (SDKS) Pretest, form A and form B, Self-Determination Parent Perception Scale (PPS), Self-Determination Teacher Perception Scale (TPS), Self-Determination Observation Checklist (SDOC), and the Self-Determination Student Scale (SDSS). The SDKS contains 37 true/false and multiple-choice questions assessing student knowledge of self-determination. The PPS and TPS scales contain 30 items each and are given to either teachers or parents to complete. According to the user's guide, parents and teachers score the students using a 5-point Likert scale ranging from very low "0" to very high "4" on a variety of self-determination behaviors, abilities, and skills. The SDOC is a 38 question behavioral observation checklist designed to be completed by a teacher or other school personnel. According to the user's guide, the school personnel should observe the student for five minutes and record behaviors that correlate with self-determination. For example, one of the questions asks, "the student negotiates with a peer"; if that behavior is observed, the teacher should check that item. Finally, the SDSS is a 92-item scale that, according to the manual, measures both affective and cognitive aspects of self-determination. Students pick one of two choices, "that's me" or "that's not me" for each item on the instrument.

The SDSS provides scores for the subscales including General Positive, General Negative, Specific Positive, and Specific Negative. Additionally, the SDSS is further divided into five additional components including K-Know yourself, V-Value yourself, P-Plan, A-Act, and O-Experience outcomes and learn. Every question on the five instruments correlates to one of the above five components. The PPS, TPS, and SDOC are scored by adding the responses. The SDSS is scored by summing the correct responses. Educators can decide to administer the entire collection of self-determination instruments or to just administer a specific instrument.

*Technical adequacy.* *The Self Determination Assessment Battery* was field-tested with a sample of 416 students with a variety of disabilities and ethnicities. Hoffman et al. (2004) investigated the internal consistency reliability of the *Self Determination Assessment Battery* and found the following: SDKS/post (.84), SDKS/pre (.83), PPS (.95), TPS (.97), and SDOC (.94). For the SDSS subscales the internal consistency reliability ranged from .88 to .97 with the exception of two subscales. To establish content validity, the blueprint approach to test construction was used. The blueprint approach is an a priori method for assuring content validity and is used to provide a description of what the test should cover (Hoffman et al., 2004). Construct- and content-related validity was established with the *Steps to Self-Determination* (Field & Hoffman, 1992) curriculum. Students who participated in curriculum yielded statistically higher scores on the SDKS than students who did not participate in the curriculum. A factor analysis using principal components analysis of the four main subscales (GN, GP, SN, and SP) explained 81.2% of the variance in the measure.

### *Choicemaker Self-Determination Assessment*

*Description.* The *Choicemaker Self-Determination Assessment* (Martin & Marshall, 1997) assesses students' self-determination skills in the areas of interests, skills and limitations, student goals, and taking action. According to Martin and Marshall (1997), the *Choicemaker Self-Determination Assessment* is a curriculum-based assessment and planning tool designed to be used in conjunction with the *Choicemaker Self-Determination Curriculum* where students learn self-determination skills by facilitating their own individual planning meetings. Teachers are asked to rate the student's self-determination skills and to identify if the student has the opportunity to acquire the skills at school. In the first section, Choosing Goals, students learn how to express their interests, skills, limits, and goals (Martin & Marshall, 1997) in a variety of transition areas. Instructors use a variety of teaching methods, including videos, worksheets, and role play to teach students on how to their goals. In the Expressing Goals section, students learn how to express the goals they desire to their IEP team (Martin and Marshall, 1995). Instructors use the *Self-Directed IEP* curriculum to teach the students the necessary steps to participate in their IEP meetings. In the final section, Taking Action, students learn to break their long-term goals into smaller, more manageable steps (Martin and Marshall, 1995) which include (a) a standard for goal performance, (b) a means for getting performance feedback, (c) what motivates them to pursue their goal, (d) the strategies they will use, (e) needed supports, and (f) schedules. As argued by Martin and Marshall (1995), these steps lead to student action, evaluation, and adjustment.

*Technical adequacy.* A multi-state test-retest reliability study revealed a .80 or higher correlation between two administrations given two weeks apart of the *Choicemaker Self-Determination Assessment* (Martin & Marshall, 1997). No validity information was reported in the testing manual. Although Martin and Marshall (1997) provide reliability information and standard conditions for administration and scoring, they provide only a limited interpretation of the data. In this assessment, teachers are asked to fill out the scales on their estimation of the students' overall self-determination skills. By the very nature of this process, the scales are biased to the degree to which they have inaccurate or pre-formed opinions of the students and/or their self-determination ability. Furthermore, the *Choicemaker Self-Determination Assessment* fails to address major components of self-determination such as student understanding of his/her disability, problem solving skills, self-knowledge, and communication styles.

*American Institutes for Research Self-Determination Scale*

*Description.* The *American Institutes for Research (AIR) Self-Determination Scale* (Wolman et al., 1994) assesses students' self-determination by identifying areas of strength and need and breaking them into three components which include thinking, doing, and adjusting. The *AIR Self-Determination Scale* has three capacity sections – Ability, Knowledge, and Perceptions-and two Opportunity sections – Opportunity at School and Opportunity at Home. Knowledge includes how well the student recognizes his/her strengths, needs, interests, and abilities. Ability includes how well the student demonstrates self-determination skills such as making choices, decision, and plans. Perception includes how well the student feels about his/her interests, needs, abilities, and

goals. The *AIR Self-Determination Scales* also includes two Opportunity sections – Opportunity at School and Opportunity at Home. Both sections refer to how much opportunity the student has to acquire self-determination skills at either school and/or home. As suggested by Wolman et al. (1994), opportunities outside of school are equally as important as opportunities students have within the school day.

The *AIR Self-Determination Scales* includes a student form, educator form, and parent form. The student form includes the following five sections: Things I Do, How I Feel, What Happens at School, What Happens at Home, and an open-ended question section. In the first four sections, students answer questions using a Likert-type scale ranging from Never “1” to Always “5”. The first section, Things I Do, includes six questions that ask students to rate how well they do certain self-determination tasks. For example, “I know what I need, what I like, and what I’m good at”. The second section, How I Feel, includes six questions that ask students how they feel about certain self-determination tasks. For example, “I feel good about what I like, what I want, and what I need to do”. The third section, What Happens at School, includes six questions about self-determination opportunities at school. For example, “People at school listen to me when I talk about what I want, what I need, or what I’m good at”. The fourth section, What Happens at Home, includes six questions about self-determination opportunities at home. For example, “People at home understand when I have to change my plan to meet my goals. They offer advice and encourage me when I’m doing this”. The final section includes the following three open-ended questions: “Give an example of a goal you are



working on? What are you doing to reach this goal? and How well are you doing in reaching this goal?" The student form is scored by adding the response for each question.

The parent and educator form were designed to correlate with the student form. In both the parent and educator form, parents and educators answer questions using a Likert-type scale ranging from Never "1" to Always "5." In the first section of the parent form, Things My Child Does, parents are asked six questions related to self-determination tasks their child may participate in. For example, "my child knows what s(he) needs, likes, and is good at. The second section, What Happens at Home, asks six questions about what self-determination tasks their child performs at home. For example, "At home, people listen when my child talks about what s(he) wants and is good at." The third section, What Happens at School, asks six questions about what self-determination tasks their child performs at school. For example, "At school, people listen when my child talks about what (s) he wants and is good at." The last section asks parents to respond to three-opened questions including, "Give an example of a goal your child is working on now? What is your child doing to reach this goal; and How is your child doing in reaching this goal?" The parent form is scored by adding the response for each question.

Finally, the educator form includes six sections: Knowledge of Self-Determination Behaviors, Ability to Perform Self-Determination Behaviors, Perception of Knowledge and Ability to Perform Self-Determination Behaviors, Opportunity to Perform Self-Determination Behaviors at School, Opportunity to Perform Self-Determination Behaviors at Home, and an open-ended section at the end. Unlike the

student and parent form, each question in the educator version includes an example to aid the educator in identifying specific examples of the questions for scoring purposes. For example, in the first section, you find the statement, “Student knows own abilities and limitations,” followed by the example, “James can identify his personal strengths and talents, such as his musical ability as well as areas in which he needs improvement, like his below average math problem-solving skills.” The educator form is scored by adding the responses for each question.

*Technical adequacy.* Field tests were completed by Wolman et al. (1994) in 70 schools and included about 450 students with and without disabilities. Wolman et al. investigated the alternate-form consistency and found correlations between .91 to .98. Test-retest reliability analyses yielded a correlation of .74, and a split-half reliability of .95. To establish validity of the *AIR Self-Determination Scale*, Wolman et al. examined the constructs of capacity-opportunity, home-school, and knowledge-ability-perception, with item scores of the instruments. Results of a factor analysis explained 74% of the variance in the measure; capacity explained 42.4%, home-school 17.25%, opportunity 10.3%, and knowledge-ability-perception 4.1%.

*Minnesota Self-Determination Scales: Skills, Attitudes, and Knowledge Scale*

*Description.* The *Minnesota Self-Determination Scales: Skills, Attitudes, and Knowledge Scale* (Abery, McGrew, & Smith, 2000) assess students’ self-determination skills in the areas of skills, attitudes, and knowledge. Two of the versions include the *Skills, Attitudes, and Knowledge Scale: the Self-Report Edition* and the *Family/Educator Edition*. According to Abery et al. (2000) the Self-Report Edition asks 101 questions

presented in the form of a statement where the student is asked to respond with “strongly disagree, disagree, agree, and strongly agree.” For example, “I think about what’s important to me when I set goals for myself.” Some of the questions ask the student to demonstrate specific knowledge. For example, “Name four goals you have set for yourself.” The Family/Educator edition asks teachers to assess the student’s self-determination skills using similar responses to the Self-Report Edition (rarely/not at all, not very often, often, and very often/always). For example, “This child/youth considers personal values when setting goals.” A total of 220 questions are asked to family and educators.

*Technical adequacy.* The *Minnesota Self-Determination Skills, Attitudes, and Knowledge Evaluation Scale-Adult Edition (Self-Determination Competencies Scale)* was field-tested with 160 participants (Stancliffe, Abery, Springborg, & Elkin, 2000). Interrater reliability was .78 to .94, internal consistency reliability was .81 to .96, and test re-test reliability was .80 to .96 for both the total and the three subscales (skills, knowledge, and attitude/beliefs). No validity information is reported in the testing manual.

#### *Need For Further Development of Self-Determination Assessments*

The existing self-determination scales described above are limited in their instructional utility for a variety of reasons. First, the *Arc’s Self-Determination Scales*, *Choicemaker Self-Determination Assessment*, the *Self-Determination Assessment Battery*, and the *AIR Self-Determination Scales* all include narrow definitions of self-determination and measure a limited number of skills. The *Choicemaker Self-*

*Determination Assessment* limits the definition of self-determination to include choosing goals, expressing goals, and taking action. Furthermore, the *Choicemaker Self-Determination Assessment* was designed with a specific purpose in mind; to be used with the *Self-Directed IEP* curriculum and more specifically, the *Choicemaker Curriculum* series. It was not designed with the intent to be a global self-determination assessment.

The *Arc's Self-Determination Scale* measures self-determination skills in the areas of autonomy, psychological empowerment, self-realization, and self-regulation. Keeping in mind the tripartite-ecological theory of self-determination (Abery and Stancliffe, 2003) one could suggest that the *Arc's Self-Determination Scale* subscales of autonomy and self regulation may measure competencies within the Skills domain. Furthermore, one could suggest the self-realized section from the *Arc's Self-Determination Scales* may translate to the Knowledge domain identified by Abery and Stancliffe. Self-realized individuals have an accurate knowledge of their strengths and weaknesses, and make informed decisions based on this knowledge (Wehmeyer, 1996). In the final domain, Attitudes and Beliefs, psychological empowerment from the *Arc's Self-Determination Scales* may apply.

Both *The Self-Determination Assessment Battery* and the *AIR Self-Determination Scale* provide a thorough description of scale construction and development, administration, scoring, and interpretation of data. However, it is difficult to assess the objectivity of the SDSS (the *Self-Determination Assessment Battery*) and the student form of the *AIR Self-Determination Scale* because self-report measures are often biased. Students may see themselves as having more self-determination skills than they actually

possess; therefore, the results may be skewed. However, by completing a teacher and a parent version in both measures, in addition to the self-determination behavior observation checklist (the *Self-Determination Assessment Battery*) inaccuracies may be avoided. Of the major limitations of both the *Self-Determination Assessment Battery* and the *AIR Self-Determination Scale* is that they fail to address major components of self-determination such as the student understanding of his/her disability, goal setting in the different transition areas, self-knowledge, and communication styles. Additionally, the practicality of completing many different forms comes into question. The variety of forms may be helpful for educators and IEP teams as they complete three-year re-evaluations but for daily, monthly, or even yearly progress updates, the number of forms to complete may become cumbersome.

The *Skills, Attitudes, and Knowledge Scale* incorporates the three domains of self-determination as described by Abery and Stancliffe (2003); however, the major limitation of the scale is that students and/or families/educators are asked to rate the students' self-determination abilities using a Likert-type response. The scale could be strengthened if the questions were reworded to include more "show me" or "tell me" type responses from the students where they actually had to demonstrate knowledge; not just circle a number from 1-4. By incorporating these types of questions in the measure, the responses are less dependent on how well the rater knows the student.

#### *Capturing Students' Strengths and Weaknesses Across Self-Determination Domains*

As discussed above, a self-determination assessment that can capture students' strengths and areas of need across the three domains of self-determination would be

useful for instructional decision-making (Abery & Stancliffe, 2003). A measure that could be used to monitor ongoing student progress in the different domains, and one that operationally defines and measures self-determination skills using a method other than a self- or teacher reported Likert-type response needs to be developed. Like the *AIR Self-Determination Scale* the *Minnesota Self-Determination Scales: Skills, Attitudes, and Knowledge Scale* discussed above, one of the limitations of the *Arc's Self-Determination Scales* is that it requires students' to self-report their self-determination abilities (Wehmeyer, 1996). After examining the relationship between the *Arc's Self-Determination Scale* and the *AIR Self-Determination Scale*, Shogren et al. (2008) suggested that both measures used accepted means to determine students' self-determination ability; however, more measurable, observational data would extend not only the self-determination literature but would also aid in our understanding of how students and teachers rate self-determination. In the area of self-determination, assessments that are reliable and valid, easy to administer, measure student knowledge by more objective means than self-report or that depend on the rater's personal knowledge of the individual, as well as assessments that can be used in transition planning need to be developed.

### *Purpose*

The purpose of this study is to develop a self-determination measure that can be used for instructional planning in transition programs. Specifically, I have developed a measure called the *Peper Transition Planning Scale* that is designed to assess each of the major self-determination domains described by Abery and Stancliffe (2003). Specific

research questions include the following: (1) What is the technical adequacy of the Peper Transition Planning Scale in terms of (a) test-retest reliability, (b) internal consistency (as measured by relations between individual questions and their domain subscales), (c) criterion-related validity (as compared to the *Choicemaker Self-Determination Assessment* and the *Minnesota Self-Determination Skills, Attitudes, and Knowledge Scale: Family/Educator Edition*), and (d) capacity to show growth over time? (2) To what extent are self-determination skills mediated by individuals' overall (a) adaptive ability, as measured by the *Adaptive Behavior Assessment System* (Harrison & Oakland, 2003) and (b) intelligence as measured by the *Wechsler Adult Intelligence Scale IV* (Wechsler, 2008)?

## Chapter III

### METHODS

#### *Setting and Participants*

This study was conducted at a transition center in a large suburban school district in the Midwest. The transition center educates students aged 18 to 21 years in the five areas of transition (employment, post-secondary education and training, community participation, recreation and leisure, and home living). Prior to enrollment, Individual Education Plan (IEP) teams at the high school determine student eligibility for attendance at the transition center. To be eligible, special education students must show a need in more than one transition area and have not accepted their high school diploma. The transition center accepts students on both a credit-driven diploma and an IEP-driven diploma. Credit-driven diplomas require that students complete all required Carnegie credits; IEP-driven diplomas are based on a student's IEP goals.

At the time of the study, 86 students were enrolled at the transition center. These students represented diverse ethnic backgrounds, including students who identified themselves as Caucasian, African-American, Asian-American, Hispanic, and East Indian. Thirty-four percent of the students received free or reduced lunch. Students aged 18-21, enrolled full-time in the transition center, with full-scale IQs 50 and above, were eligible to participate in the study. I posted fliers advertising the study around the center and in student mailboxes. Additionally, I visited each class at the transition center to explain the study and answer any questions. All 86 students were eligible; of these, 57 students chose to participate in the current study. All of the students had taken a Self-Advocacy



class (described in more detail below), but participated in varying degrees; the specific nature of each student's participation in the class is unknown. Participants had a variety of primary disabilities, including Autism Spectrum Disorder, Specific Learning Disability, Developmental Cognitive Disability, Other Health Disability, Emotional and Behavioral Disorder, Physical Impairment, Speech and Language Impairment, Visual Impairment, and Severe Multiple Disabilities. Each participant received a \$20.00 gift card from a local retail store for participating in the study.

Specific demographic information is reported in Table 1 and includes means, *SDs*, and ranges for age, full-scale Intelligence Quotient (IQ), and adaptive ability. Numbers and percents are provided for sex, type of disability, year in program, employability status, ethnicity, and Basic Standards Test (BST) outcomes (Pass, Pass Individual, or Alternate) for math, reading, and writing. Year in program is defined as the number of year(s) a student had been enrolled in the transition center. Employability status was marked "yes" if the student had either a part-time or full-time job. The BST is a standardized competency exam that all Minnesota high school students are required to take and pass to graduate. Students with IEPs have three options when taking the BST: (1) they can take and pass each of three BSTs, which is recorded as a "pass;"; (2) they can take the BST in any of the three areas and not pass, in which case the IEP team can determine that this is the highest score a student can obtain in a specific area (math, reading, or writing), and a "pass individual" score will be recorded; or (3) an IEP team can decide a student's disability greatly affects their participation in the BST testing and an alternative assessment is given; this is recorded as an "alternative."

### *Learning Activities Provided at the Transition Center*

In this section, I provide a brief account of the learning activities experienced by students enrolled in the transition center; such information may be useful in understanding the types of skills and experiences participants drew upon during the assessment. Once a student enrolls at the transition center, they receive a range of instruction based on their IEP. During the first year, many students choose to take classes at the center all day. These classes include Work Seminar, Consumer Education, Housing, Know Your Community, Basic Internet, and Self-Advocacy. During the second year, many students attend the center part-time, and either take classes at a local community college or work on a job for the remainder of the day. During the third year, many students attend the center for one class and then spend the rest of their day working or attending college.

There is one class at the transition center that is highly recommended for all students: Self-Advocacy. According to the transition center's website, "Self-Advocacy is a year-long course, which most first year students participate in. Each trimester, a different unit is covered. In trimester one, we focus on 'expressing yourself.' Students learn a variety of assertive techniques to use at school, on-the-job, and in the community. During trimester two, students focus on 'looking at self.' Students are encouraged to explore their values and emotions. This semester concludes with the annual reading of the 'Me Poems.' In the final trimester, students practice working together in groups. While in groups, students participate in a variety of team building activities, as well as partake in several problem solving activities." Even though the Self-Advocacy class is highly

recommended for all students, many students experience a range of “dose” of this instruction during their first year. For example, some students obtain a job sometime during the school year that limits their participation in the class, some students decide to attend a college, and some students experience attendance difficulties.

### *Measures*

#### *New Transition Measure*

For this study, a new measure was developed: the Peper Transition Planning Scale (Student and Interviewer Versions; see Appendix). The Interviewer and Student Versions of the Peper Transition Planning Scale are very similar, but the Interviewer Version includes possible sample answers under each question and scoring rubrics for each section. The construction was based on the tripartite-ecological theory of self-determination (Abery & Stancliffe, 2003), and included three domains of self-determination competencies: skills, knowledge, and attitudes and beliefs.

Prior to creating the questions on the Peper Transition Planning Scale, I examined the empirical literature, looked at sample questions from the *Choicemaker Self-Determination Assessment* (Martin & Marshall, 1997) and the *ARC's Self-Determination Assessment* (Wehmeyer & Kelchner, 1995), and talked with teachers at a transition program about what they thought their students needed to know for effective transition planning. My goal was to develop a comprehensive, yet concise self-determination measure that educators could easily administer within a 30-minute period. After talking with transition educators, I determined that, to achieve a concise, yet instructionally

useful measure, a minimum of four to five questions in each sub-skill area would provide enough information for educators to make instructional decisions, while at the same time not overwhelming them with unnecessary information. I was able to develop a minimum of four questions in all subskills areas except for “Problem Solving”. In the Problem Solving section I had difficulty creating more than two “show me” or “tell me” type questions, so I chose to focus on creating questions with multiple parts in which students could demonstrate their knowledge of how to solve a problem.

The instrument was created with input from several special education professionals and transition/self-determination experts and was designed to be generalizable across different states by ensuring that state-specific terms were avoided whenever possible and/or including the wording “or comparable term” so that an examiner could substitute in state-specific terms. For example, in the “Goals” section a question reads, “What is one example of an IEP goal in the transition area of employment (or comparable term)?” Additionally, the questions were worded in a way that required the student to demonstrate knowledge and understanding. For example from the “Communication” section, “Show me two examples of passive behavior?” This was done to reduce bias that may result from a rating scale that relies on the examiner’s knowledge of that particular student.

Prior to distribution, the Peper Transition Planning Scale was piloted with three teachers and five students who were similar to those students who participated in the actual study. The purpose of piloting the Peper Transition Planning Scale was to determine the appropriateness of the wording of each question, determine if the students

could understand the questions, to develop a list of possible answers/responses for each question, and to determine the approximate length of time to administer the assessment. After piloting the measure, several questions had to be reworded and simplified to make them easier for students to understand. Additionally, several more possible correct answers were added to the Interviewer Version of the scale. Through the piloting process, I determined the measure could be administered in 30-60 minutes.

*Peper Transition Planning Scale.* The Peper Transition Planning Scale is comprised of three domains, including Skills, Knowledge, and Attitudes/Beliefs. Within each domain, there are several subskills that are organized in sections as follows (also see the measure in its entirety in the Appendix):

Domain 1: Skills

- Section 1: Goal setting, includes eight questions that ask students to identify sample goals in each of the transition areas (employment, post-secondary education and training, community participation, recreation and leisure, and home living), as well as IEP goals.
- Section 2: Decision making, includes five questions that ask students to give examples of decisions they make throughout their day, how their IEP teams decided on their IEP goals, which IEP goals they had input on, and who makes the most decisions regarding their lives.
- Section 3: Problem solving, asks students to identify a problem they had to recently solve, how they solved it, and to identify the six steps to problem solving.

- Section 4: Personal advocacy, includes five questions that ask students to identify their disabilities, ways in which their disabilities affect their everyday lives, strategies they have, and accommodations others make for them related to their disabilities.
- Section 5: Communication, includes five questions that ask students to demonstrate different communication modes (passive, aggressive, assertive) and to identify examples of non-verbal behavior.

#### Domain 2: Knowledge

- Section 6: Knowledge of laws, rights, and responsibilities, includes four questions asking students to identify at what age students should be invited to attend their IEP meetings, at what age transition programming ends, three civil rights related to their disability, and two places they would go for help if they needed it.
- Section 7: Knowledge of resources and systems, includes four questions asking students to identify one resource they will have available to them once their transition programming ends, how they will access a resource in the future, and one service both a Minnesota Rehabilitation Counselor and a county social worker can offer.
- Section 8: Self-knowledge, includes four questions and asks students to identify their personal strengths, weaknesses, interests, and values.

### Domain 3: Attitudes and Beliefs

- Section 9: Sense of determination, includes three questions asking students to identify goals on their IEP, progress made on their goals, and ways to reach goals even in the face of adversity.
- Section 10: Locus of control, includes four questions asking students if they believe they will achieve their goals, earn their high school diploma, if they believe their actions will impact their future, and if achieving their goals is important to them.
- Section 11: Self-esteem/self-concept, includes four questions asking students to identify an example of a goal they have achieved in the past and one they have not, if they believe their IEP team assists them in reaching their goals, and if they have accepted their disability.

#### *Criterion Measures*

To establish criterion-related validity of the Peper Transition Planning Scale, two self-determination assessments were administered to all students: the *Minnesota Self-Determination Scale, Self-Determination Skills, Attitudes, and Knowledge Scale: Family/Educator Edition* (Abery, McGrew, & Smith, 2000) and the *Choicemaker Self-Determination Assessment* (Martin & Marshall, 1997). Whereas the Peper Transition Planning Scale was administered twice to establish test-retest reliability and once more to determine growth, only correlations from the second administration of the Peper Transition Planning Scale were used because that administration was the closest point in

time with the completion of the *Choicemaker Self-Determination Assessment* and the *Minnesota Self-Determination Scales: Skills, Attitudes, and Knowledge Scale*.

*Minnesota Self-Determination Scale*. The *Minnesota Self-Determination Scale* is a self-determination measure that allows educators to report student strengths, weaknesses, and areas of need related to the domains of self-determination. The *Minnesota Self-Determination Scale* was chosen to establish criterion-related validity because it is a widely used self-determination assessment available to students, educators, and families of students with mild disabilities. As discussed above, according to Stancliffe, Abery, Springborg, et al., (2000) The *Minnesota Self-Determination Skills, Attitudes, and Knowledge Evaluation Scale-Adult Edition (Self-Determination Competencies Scale)* was field-tested with 160 participants. Interrater reliability was .78 to .94, internal consistency reliability was .81 to .96, and test re-test reliability was .80 to .96 for both the total and the three subscales (skills, knowledge, and attitude/beliefs). No validity information was reported in the testing manual.

The following sections of the *Minnesota Self-Determination Scale* were completed: goal setting, decision making, problem solving, personal advocacy, communication, laws, rights, and responsibilities, resources and systems, self-knowledge, locus of control, self-esteem/self-concept, and sense of determination. These sections were chosen because they aligned with the Peper Transition Planning Scale and they related closely to many areas in transition programming. Specifically, subskills related to IEP participation and development with a strong empirical basis were included.



Students' raw scores were determined by adding up the responses to each question on the measure.

*Choicemaker Self-Determination Assessment.* As discussed in Chapter II, another self-determination measure, the *Choicemaker Self-Determination Assessment* (Martin & Marshall, 1997), assesses students' self-determination skills in the areas of interests, skills and limitations, student goals, and taking action. The *Choicemaker Self-Determination Assessment* is a curriculum-based assessment and planning tool designed to be used in conjunction with the *Choicemaker Self-Determination Curriculum* where students learn self-determination skills by facilitating their own individual planning meetings. Teachers are asked to rate the student's self-determination skills and to identify if the student has the opportunity to acquire the skills at school. Students' raw scores were determined by adding up the responses to each question on the measure. A multi-state test-retest reliability study found a .80 or higher correlation between the first and second administration given two weeks later of the *Choicemaker Self-Determination Assessment* (Martin & Marshall, 1997). No validity information was reported in the testing manual.

#### *IQ and Adaptive Skill Measures*

Every student in special education is required to participate in an annual assessment every three years (Flexer et al., 2008). As part of the three-year review, all assessment teams must address intellectual abilities for each student under review. Assessment teams decide if new intellectual testing is required or if a review of records will suffice. Typically, if a student has had three consistent IQ scores, an assessment

team will decide not to administer an additional IQ test. In addition to reviewing intellectual abilities, many IEP teams address functional or adaptive abilities for many students. This information is important for IEP teams because, as students transition to adulthood, having information regarding both intellectual and functional abilities will help families and adult agencies program effectively for the student once they exit public education and transition to adult services (Flexer et al.). For this study, both IQ and adaptive scores were collected to determine the extent to which intellectual abilities and functional skills are related to an individual's self-determination performance.

*IQ Measure (Wechsler Adult Intelligence Scale).* To determine IQ, I reviewed each participant's special education due process records. I recorded the Full Scale IQ for each participant when it was available ( $N=54$ ). Within the last three years a district school psychologist either administered an IQ test using the *Wechsler Adult Intelligence Scale (WAIS) IV* (Wechsler, 2008) or completed a review of past IQ scores. The *WAIS* is composed of 10 core subtests and five supplemental subtests. The Full Scale IQ is comprised of scores from the Verbal Comprehension Index (VCI), the Perceptual Reasoning Index (PRI), the Working Memory Index (WMI), and the Processing Speed Index (PSI) (Kaufman, Flanagan, Alfonso, & Mascolo, 2006). The *WAIS-IV* normative sample included over 2,200 participants and was stratified by sex, education level, ethnicity, and region. The internal consistency coefficients reported for the *WAIS-IV* included .94 for VCI, .92 for PRI, .92 for WMI, and .88 for PSI. Test-retest coefficients reported for the *WAIS-IV* .93 for VCI, .89 for PRI, .86 for WMI, and .93 for PSI (Kaufman et al., 2006).

*Adaptive Behavior Assessment System*. Finally, I completed a functional or adaptive measure on all participants. Adaptive behavior can be defined as, “the general ability of an individual to take care of him- or herself as well as to interact with and assist others” (Perkins-Dock, 2003, p. 183). Examples of adaptive behavior include communication, independent living, social skills, self-care, and vocational skills.

The *Adaptive Behavior Assessment System (ABAS) – Second Edition* (Harrison & Oakland, 2000) was administered to all participants in this study. The purpose of the ABAS-II is to “provide a reliable, valid, comprehensive, norm-based measure of adaptive behavior skills for children and adults from birth to age 89 (Rust & Wallace, 2004, p. 367). The ABAS includes the following 10 skill areas: communication, community use, functional academics, health and safety, home or school living, leisure, self-care, self-direction, social, and work. The ABAS includes four domain composite scores (Conceptual, Social, Practical, and General Adaptive Composite or GAC). For each participant, an educator form was completed. I rated each student using a 4-point Likert scale using the following choices: 0 = is not able, 1 = never or almost never when needed, 2 = sometimes when needed, and 3 = always or almost always when needed. When scored, each student was given a GAC score based on their Likert scores. Rust and Wallace reported test-retest reliability to be .90 or higher. Additionally, the average internal consistency for the standardization samples has ranged from .98 to .99. Construct validity in the 10 skill areas ranged from  $r = .40$  to  $.70$ , between the skill areas and their adaptive domains ( $r = .55$  to  $.78$ ), between the skill areas and the GAC ( $r = .64$  to  $.82$ ), and the adaptive domains and the GAC ( $r = .78$  to  $.93$ ).

*Procedures*

The first wave of data collection for this study took place in February 2009. The second wave took place 3 months later, in May 2009. During Week 1 of the first wave, researchers administered the Peper Transition Planning Scale to all students. Two weeks later (Week 3), students retook the Peper Transition Planning Scale. Three months later, students retook the Peper Transition Planning Scale to determine if students demonstrated growth from the last administration three months earlier.

Three volunteer researchers were trained to administer the Peper Transition Planning Scale. Each volunteer had at least a master's degree (one also had her Ph.D. in special education), experience working with older individuals with disabilities in either a school or clinical setting, and a background in special education assessment practices. Each volunteer researcher met with the lead researcher and received one hour of training. Each volunteer was given both an Interviewer and Student Version of the Peper Transition Planning Scale. The Peper Transition Planning Scale Interviewer Version includes sample answers under each question. Researchers used the sample answers to guide their scoring of student responses. The lead researcher went over all 50 questions and possible correct answers on the scale. Volunteer researchers were instructed to read each question to the participant and write down their response. If a participant had a question about a particular question, the volunteer researcher was told to clarify the question. If a volunteer researcher was unsure about scoring a possible response, they were instructed to inform the lead researcher and together a decision was made.

Each administration of the Peper Transition Planning Scale was tape recorded. Inter-rater agreement was established by an independent scorer listening to one-third of the tape recordings and scoring the protocols independently. The independent scorer then compared her scored items to the original scores, and determined interrater agreement using a point-by-point method. Percent agreement was calculated by dividing agreements by agreements plus disagreements and multiplying by 100. In the first administration, the mean agreement was 99.2% (range 96-100%). In the second administration, the mean agreement was 99.0% (range 96-100%). In the final administration, the mean agreement was 99.0% (range 98-100%).

#### *Design and Data Analysis*

For this study, a correlational design was used to examine the technical adequacy of the new transition measures (Gall et al., 2003). Pearson's  $r$  correlation coefficients were used to determine test-retest and criterion-related validity. Additionally, paired  $t$ -tests were performed to determine whether statistically significant growth occurred over three months on both the Peper Transition Planning Scale and the transition vocabulary measure. Effect sizes were calculated to determine magnitude of growth; Cohen's (1988) guidelines were followed to judge effect sizes as small (.2), medium (.5), or large (.8). A multiple regression was used to determine the relative contribute of IQ and adaptive behavior to students' performance on the Peper Transition Planning Scale.

Finally, a reliability analysis was performed to determine the importance of individual questions on the Peper Transition Planning Scale. In a reliability analysis, the mean and variance of a specific item when deleted, as well the Cronbach's alpha and

corrected item-total correlation, are reported. Cronbach's Alpha is a coefficient of reliability (Field, 2005) and is used to measure how well a set of items measures the same construct. The scale mean and variance if items are deleted indicate what the effect of deleting an item on the reliability of the measure would be. If the scale is reliable, any one item should not greatly affect the mean and variance of the scale (Field, 2005). Finally, the corrected-item total correlations are the correlations between individual questions on the scale and the total score. All individual questions should correlate with the scale; questions with a value less than .30 typically do not correlate well with the scale and may need to be dropped. For the Peper Transition Planning Scale, the corrected item-total correlation for each of the three sub scales was investigated.

## Chapter IV

### RESULTS

In this Chapter, I report descriptive data and results of analyses performed to address the following research questions: (1) What is the technical adequacy of the Peper Transition Planning Scale in terms of (a) test-retest reliability, (b) internal consistency (as measured by relations between individual questions and their domain subscales), (c) criterion-related validity (as compared to the *Choicemaker Self-Determination Assessment* and the *Minnesota Self-Determination Skills, Attitudes, and Knowledge Scale: Family/Educator Edition*), and (d) capacity to show growth over time? (2) To what extent are self-determination skills mediated by individuals' overall (a) adaptive ability, as measured by the *Adaptive Behavior Assessment System* (Harrison & Oakland, 2003) and (b) intelligence as measured by the *Wechsler Adult Intelligence Scale IV* (Wechsler, 2008)?

#### *Descriptive Data*

Descriptive statistics, including means, *SDs*, ranges, skewness, and kurtosis for the Peper Transition Planning Scale (February Test, February Retest, and May Test) are found in Table 2. Table 3 displays descriptive statistics including means, *SDs*, ranges, skewness, and kurtosis for the two criterion measures, *Choicemaker Self-Determination Assessment* (Martin & Marshall, 1997) and the *Minnesota Self-Determination Scales: Skills, Attitudes, and Knowledge Scale* (Abery, McGrew, & Smith, 2000).

*Technical Adequacy of the Peper Scales*

*Test-retest reliability.* Pearson- $r$  correlation coefficients were calculated to determine the test-retest reliability of the Peper Transition Planning Scale. Participants took the Peper Transition Planning scale twice in February, two weeks apart. Correlations between  $r = .10$  to  $.30$  are generally considered to have a weak relationship, correlations between  $r = .40$  to  $.70$  are considered to have a moderate relationship, and correlations of  $r = .80$  and higher are considered to have a strong relationship (Moore, 2004). Test-retest reliability coefficients for the three domains were as follows: Skills ( $r = .86$ ), Knowledge ( $r = .67$ ), Attitudes ( $r = .82$ ). Test-retest reliability for the Total score was  $r = .90$ .

*Reliability analysis.* To determine the relationship between individual questions on the Peper Transition Planning Scale and their domain subscale, a reliability analysis was completed. For each subscale (Skills, Knowledge, and Attitudes), the scale mean and variance if items deleted is displayed in Table 4, as well as the corrected-item total correlation. Additionally, Cronbach's Alpha for each subscale is reported.

In the Skills component, questions 9 ( $r = .10$ ) and 13 ( $r = .26$ ) have corrected-item total correlations below  $.30$ . In the Knowledge component, questions 25 ( $r = .21$ ), 26 ( $r = .29$ ), 28 ( $r = .27$ ), 30 ( $r = .27$ ), 31 ( $r = .17$ ), 32 ( $r = .22$ ), 33 ( $r = .23$ ), and 35 ( $r = -.00$ ) have corrected-item total correlations below  $.30$ . In the Attitudes component, questions 42 ( $r = .22$ ), 44 ( $r = .09$ ), and 49 ( $r = .01$ ) have corrected-item total correlations below  $.30$ .



*Criterion-related validity.* To determine criterion-related validity, correlation coefficients were calculated between the *Choicemaker Self-Determination Assessment* and the *Minnesota Self-Determination Scales: Skills, Attitudes, and Knowledge Scale*. I used correlations from the second administration of the Peper Transition Planning Scale because that administration was the closest point in time with the completion of the *Choicemaker Self-Determination Assessment* and the *Minnesota Self-Determination Scales: Skills, Attitudes, and Knowledge Scale*. As reported in Table 5, correlation coefficients between the *Choicemaker Self-Determination Assessment* and the Peper Transition Planning Scale ranged from  $r = .42$  with the Peper Knowledge subtest to  $r = .56$  with the Peper Total score. Correlation coefficients between the *Minnesota Self-Determination Scales: Skills, Attitudes, and Knowledge Scale* and the Peper Transition Planning Scale ranged from  $r = .32$  to  $.60$ . All correlations were significant at or above the  $p < .05$  level.

*Capacity to show growth.* To determine the Peper Transition Planning Scale's capacity to show growth over time, a paired-samples  $t$ -test was completed. As displayed in Table 6, statistically significant growth from February to May was demonstrated in all three domains (Skills, Knowledge, and Attitudes/Beliefs), with effect sizes ranging from  $.21$  to  $.58$ .

#### *Contribution of Adaptive Ability and IQ to Self-Determination Performance*

Multiple regression analyses were conducted to determine the relative contribution of adaptive IQ and full-scale IQ on students' self-determination performance

as measured by the Peper Transition Planning Scales. Results from these analyses are displayed in Tables 7, 8, 9, and 10.

First, regression analysis was completed to determine the proportion of variance on the Total score on the Peper Transition Planning Scale accounted for by adaptive ability and IQ (see Table 7). Adaptive IQ accounted for 24% of the variance ( $p < .001$ ). When IQ was added into the model, with a  $B$  of .49, 35% of the variance was accounted for ( $p < .05$ ). To explore whether other available variables (age, sex, year in program, and employment status) accounted for additional variance, I added these variables to the model. As is displayed in Table 7, the addition of these variables did not reliably account for additional variance.

I also conducted regression analyses for each individual sub-skill of the Peper Transition Planning Scale (using only adaptive ability and IQ, given that additional variables did not to add predictive value in the model for the Total score). For Skills (see Table 8), 28% of the variance was accounted for by Adaptive IQ ( $p < .001$ ). When IQ was added to the model, with a  $B$  of .38, 37% of the variance was accounted for ( $p < .05$ ). For Knowledge (see Table 9), 17% of the variance was accounted for by Adaptive IQ ( $p < .05$ ). When IQ was added into the model, with a  $B$  of .24, 29% of the variance was accounted for. For Attitudes (see Table 10), 10% of the variance was accounted for by Adaptive IQ ( $p < .05$ ). Adding IQ to the model did not statistically significantly account for additional variance.

## Chapter V

### DISCUSSION

The purpose of this study was to develop a self-determination measure that could be used for instructional planning in transition programs. Specifically, I developed a measure called the Peper Transition Planning Scale to assess each of the major self-determination domains described by Abery and Stancliffe (2003). Specific research questions included the following: (1) What is the technical adequacy of the Peper Transition Planning Scale in terms of (a) test-retest reliability, (b) internal consistency, (c) criterion-related validity, and (d) capacity to show growth over time? (2) To what extent are self-determination skills mediated by individuals' adaptive ability and IQ? Below, I discuss findings with respect to these questions, followed by implications for research and practice.

#### *Technical Adequacy of the Peper Scales*

To determine the technical adequacy of the Peper Transition Planning Scale, I examined the test-retest reliability, internal consistency, criterion-validity of scores, and the capacity of the measure to show growth over time. Results indicate that the Peper Transition Planning Scale yielded scores that were reliable, moderately valid, and appeared to detect moderate growth made in a 3-month time period.

#### *Test-Retest Reliability*

Pearson- $r$  correlation coefficients suggest strong reliability in the areas of Skills ( $r = .86$ ), Attitudes ( $r = .82$ ), and Total scores ( $r = .90$ ). Whereas these results are

promising and support the technical adequacy of the measure, the area of Knowledge yielded less reliable scores; possible reasons for the lower reliability in this area relate to the item analysis and will be discussed in that section. Overall, the test-retest reliability of the Peper Transition Planning Scale is comparable to other, established measures of self-determination, including *The Arc's Self-Determination Scale* ( $r = .62$  to  $.90$ ; Wehmeyer & Kelchner, 1996), the *Self-Determination Assessment Battery* ( $r = .88$  to  $.97$ ; Hoffman et al., 2004), the *Choicemaker Self-Determination Assessment* ( $r = .80$ ; Marshall & Marshall, 1997), the *AIR Self-Determination Scale* ( $r = .74$ ; Wolman et al., 1994), and the *Minnesota Self-Determination Skills, Attitudes, and Knowledge Evaluation Scale – Adult Edition (Self-Determination Competencies Scale)* ( $r = .80$  to  $.96$ ; Stancliffe, Abery, Springborg, et al., 2000).

### *Item Analysis*

Another goal of this study was to determine the reliability of individual questions on the Peper Transition Planning Scale, and thus to identify those items that are worthy of retention versus those that should be eliminated or changed. Specifically, the corrected item-total correlation for each of the three areas (Skills, Knowledge, and Attitudes) was investigated. The areas of Skills (.84) and Attitudes (.84) appear to have good internal consistency and the area of Knowledge (.62) appears to have moderate internal consistency.

*Skills and attitudes.* All items in the Skill area appear to be worthy of retention except for Question 9 ( $r = .10$ ) “Tell me two examples of decisions you have made

during the school day” and Question 13 ( $r = .26$ ), “Who do you feel makes the most decisions regarding your life.” These questions appear to not correlate well with the scale and may not be good measures of the Skills construct in this measure. Question 2 ( $r = .35$ ), “What are the areas of transition planning”, Question 8 ( $r = .32$ ), “Identify the goals on your IEP”, and Question 16 ( $r = .33$ ), “Tell me the name of your disability” each meet the minimum correlation (.30) suggested by Field (2005) but may need to be further investigated to determine their contribution to the scale.

All items in the Attitudes area appear to be worthy of retention except for questions 42 ( $r = .22$ ), 44 ( $r = .09$ ), and 49 ( $r = .01$ ). Question 42, “Tell me where you would like to be living and working five years from now;” Question 44, “Do you believe you will earn your high school diploma? Why or why not?” and Question 49, “Do you believe your IEP team assists you in reaching your goals? Why or why not?” appear to not correlate well with the scale and may not be good measures of the Attitudes component of the self-determination construct. Question 38 ( $r = .32$ ), “Tell me two examples of new things you have tried”, may also not contribute to a measure of self-determination.

In summary, most of the items found in the Skills and Attitudes section appear to support the internal consistency of the measure. This finding extends the literature by demonstrating that Abery and Stancliffe’s (2003) tripartite ecological theory of self-determination may be able to be translated into “show me” or “tell me” type responses. As discussed in Chapters I and II, one of the major limitations of well-established self-determination scales like the *Choicemaker Self Determination Assessment* and the

*Minnesota Self-Determination Skills, Attitudes, and Knowledge Scale: Family/Educator Edition* is that students and/or families/educators are asked to rate the students' self-determination abilities using a Likert-type response. By incorporating these types of questions in the measure, the responses are less dependent on how well the rater knows particular details about the student. The results reveal that the construct of self-determination may be reliably measured using show-me/tell-me type responses.

*Knowledge.* Whereas the Skills and Attitudes areas generally appear to have internal consistency, the Knowledge area has only four questions that appear worthy of retention; the remaining questions appear to not correlate well with the scale: Question 25 ( $r = .21$ ), "According to the law, at what age are students invited to attend their IEP meetings;" Question 26 ( $r = .29$ ), "Tell me at what age does transition programming end;" Question 28 ( $r = .27$ ), "Tell me two places you would go and/or two people with whom you would talk to if you felt that any of your civil rights were being violated;" Question 30 ( $r = .27$ ), "Tell me how you would access a resource in the future if you need one;" Question 31 ( $r = .17$ ), "Tell me what services the Minnesota Resource Center (or comparable agency) and/or a rehabilitation counselor can offer you;" Question 32 ( $r = .22$ ), "Tell me what services a county social worker can offer you;" Question 33 ( $r = .23$ ), "Tell me two of your personal strengths;" and Question 35 ( $r = -.00$ ), "Tell me two of your personal interests." The above questions appear to not be good measures of the self-determination Knowledge construct; the lack of internal consistency may explain why the test-retest reliability of the Knowledge section was lower than the other two areas (Skills and Attitudes).

The above questions may not have functioned as intended for a couple of reasons. First, many of the questions were worded in such a way that assessed students' recall, not their self-determination abilities, per se. For example, the question "Tell me at what age transition programming ends" requires students' to recall a fact, but does not necessarily reflect how they might use that knowledge to help plan in their transition programming. Perhaps the question could be reworded in such a way that allows students to demonstrate knowledge as to why it is important to know that transition programming ends at age 21; for example, "Why does transition programming end at age 21?"

Unlike high school, many services available to individuals once they transition to adult services are eligibility based (Flexer et al., 2008) meaning individuals may need to show proof of disability and meet certain eligibility criteria before they can gain access to a service or resource. As a result of this important distinction, it is imperative that students with disabilities have an awareness of services available to them in the community (Flexer et al.). However, as many students prepare to leave high school and transition to adult services, they often have little knowledge and awareness of what services are available to them in their community (Abery, McGrew, & Smith, 1995, as cited in Abery & Stancliffe, 2003). As a result, many students may not realize the importance of knowing what resources are available to them in their community; and therefore, may not see the value of knowing this information when they are in high school or a transition program. This reasoning could also help explain why the questions in this section did not function as intended.

Finally, because the sample of students in this study all attended the same transition program, they either all knew or all did not know the answers to many of the questions that were more knowledge-based. Almost every single student did not know the answer to question 25, “According to the law, at what age are students invited to attend their IEP meetings?” Perhaps, the knowledge-based items on this scale are not sufficiently addressed in the curriculum for this particular transition program. Rather than suggest the problematic questions be thrown out and/or reworded, perhaps a wider range of questions should be included to better represent what might be covered across different curricula and to avoid potential floor or ceiling effects. In addition, to address the internal consistency issues, I would suggest increasing the number of questions in this section, which might also increase the range in individual scores on the knowledge section. Finally, the same measure should be administered to a larger, more heterogeneous sample of transition-age students to further investigate the internal consistency of the overall measure.

#### *Criterion-Related Validity*

To establish criterion-related validity, I compared the Peper Transition Planning Scale to the *Choicemaker Self Determination Assessment* and the *Minnesota Self-Determination Skills, Attitudes, and Knowledge Scale: Family/Educator Edition*. Whereas these measures have limitations, as discussed in Chapters I and II, I chose to use them as criterion measures in the absence of stronger alternatives. Despite their limitations, these two measures have been demonstrated to have sufficient technical



characteristics and are designed to measure similar self-determination competencies (related to transition) as the Peper Scales were designed to measure.

Correlations with the *Choicemaker Self-Determination Assessment* were moderate ( $r = .42$  to  $.56$ ). The *Choicemaker Self-Determination Assessment* was designed to be used with a specific curriculum (the *Choicemaker Curriculum* and the *Self-Directed IEP*) and included a more narrow range of skills measured than the Peper Transition Planning Scale; meaning the *Choicemaker* and the Peper Transition Planning scale are not measuring the exact same self-determination competencies. This important difference may help explain the moderate correlations. Additionally, the *Choicemaker* and the Peper Transition Planning Scale require different response formats. An educator completes the *Choicemaker* with no student involvement; they simply rate the student on their self-determination performance using a Likert-type response. The Peper Transition Planning Scale, on the other hand, requires the examiner to interview the student to obtain their self-determination abilities and areas of need. This variation in scale format may have also contributed to the somewhat moderate correlations.

Correlations with the *Minnesota Self-Determination Skills, Attitudes, and Knowledge Scale: Family/Educator Edition* were somewhat weak to moderate, ranging from  $r = .32$  to  $.60$ . The Peper Transition Planning Scale was developed based on the *Minnesota Self-Determination Scales*, incorporating many of the same sub-areas as the *Minnesota Self-Determination Scales*. As a result, I had expected somewhat stronger correlations among scores on the two measures. One of the reasons for the moderate correlations may be because the *Minnesota Self-Determination Scales* requires the

respondents to use a self-report, Likert-type scale to quantify self-determination ability, whereas the Peper Transition Planning Scale requires the respondents to “show or tell” their self-determination ability. The range of scores for the *Minnesota Self-Determination Skills, Attitudes, and Knowledge Scale* was 65-331; the range for the Peper Transition Planning Scale was 24-97. The more restricted range in scores on the Peper Scale may also account for the moderate correlations.

### *Growth*

Statistically significant growth was observed in all three areas of the Peper Transition Planning Scale (Skills, Knowledge, and Attitudes); with effect sizes ranging from  $d = .21$  to  $.58$ . Between the first administration and the third administration, three months transpired; on average, students made gains of over half a standard deviation from their initial to final performance in this time period. Whereas I do not have an independent measure to determine that growth observed on the Peper Scales reflects “true” growth made over the three months, the effect sizes appear to reflect a reasonable estimate of growth that could have occurred during this time period. Given that some students in this study participated regularly in the Self Advocacy curriculum (described in Chapter III), but that many students received less consistent daily instruction because they obtained employment, started attending college, or had less consistent attendance, small to moderate growth on the Peper Scales seems accurate. Additional research is needed to determine whether growth observed on the Peper Scales reflects the actual gains that students are experiencing in developing self-determination skills.

### *Summary of Technical Adequacy Findings*

The Peper Transition Planning Scale appears to have the capacity to yield reliable and valid scores in the area of self-determination and should be measured by several technical criteria including reliability and validity (Gall et al., 2003). The technical adequacy of the Peper Transition Planning Scale is consistent with other established self-determination measures (i.e. the *Choicemaker Self Determination Assessment* and the *Minnesota Self-Determination Skills, Attitudes, and Knowledge Scale: Family/Educator Edition*); it also extends the existing literature by using show-me/tell-me, rather than self report, Likert type responses throughout the measure.

One of the major limitations of well-established self-determination measures such as the *Arc's Self-Determination Scale* (Wehmeyer & Kelchner, 1995) is that it is difficult to assess the objectivity of these scales because self-reported and teacher-reported data are often inaccurate (Wehmeyer & Kelchner). Students often rate themselves as having higher ability than they actually possess and teacher ratings may not be accurate because they either do not know students' true abilities and areas of need or they do not understand how to complete the scale. The Peper Transition Planning Scale attempts to overcome this major weakness by incorporating questions that require the respondent to demonstrate their self-determination competencies by either a "tell me" or "show me" response. This unique aspect of the scale attempts to quantify the construct of self-determination in an objective way.

It is important to note that the administrator of the test needs to be unbiased in both the administration and scoring of the test; otherwise, the results of the test may be

skewed and not produce accurate results (Gall et al., 2003). In this study, the Interviewer Version of the Peper Transition Planning Scale provided the administrator with sample answers under each question. Researchers used the sample answers to guide their scoring of student responses. Volunteer researchers were instructed to read each question to the participant and write down their response. Each administration of the Peper Transition Planning Scale was tape recorded and a 99% inter-rater agreement was calculated. These important steps were taken to reduce potential sources of bias in administration.

#### *Relation of Adaptive Behavior and IQ to Self-Determination Performance*

Another goal of this study was to determine the contribution of IQ and adaptive behavior on students' performance on the Peper Transition Planning Scale. A regression analysis revealed that, together, adaptive ability and IQ accounted for 35% of the variance in students' Total self-determination performance. Further, adaptive ability and IQ accounted for 37%, 29%, and 16% of the variance on the Skills, Knowledge, and Attitude subsections, respectively. Whereas a substantial proportion of variance is accounted for by adaptive skill and IQ, especially on Skills, Knowledge, and Total scores, much of the variance remains unaccounted for. This finding suggests that performance on the Peper Transition Planning Scale is not merely a proxy for adaptive skill and IQ, but it also raises the question: what other variables are related to students' self-determination performance as measured by the Peper Transition Planning Scale?

To begin to answer this question, I ran additional regression analysis, investigating age, sex, year in program, and employment status to try and explain some of the additional variance; however, these variables did not reliably account for any

additional variance. Further research is needed to identify other variables that are related to self-determination performance; below, I identify possible factors that warrant exploration.

One possible variable could include exposure to the transition center's Self-Advocacy curriculum and other instruction related to developing self determination. As discussed in Chapter III, students enrolled at the transition center are strongly encouraged to take the Self-Advocacy course. Although all students in this study participated in the Self-Advocacy class, they did so to varying degrees. Unfortunately, data were not collected on the extent to which each student participated and was exposed to the Self-Advocacy class. Directly teaching self-determination skills to students has been demonstrated to alter self-determination outcomes (Flexer et al., 2008; Powers, et al., 2005; Wehmeyer, 1992) thus, this varying degree of exposure may explain additional variance in performance on the Peper Scales.

Another possible variable may be students' exposure to life experiences both in, and outside of school. Students who have more opportunity to make choices, experience advocating for themselves both at home and at school in situations such as their IEP meetings, may have stronger self-determination abilities. Abery and Stancliffe (2003) suggested that self-determination involves (1) exercise of control, (2) desired level of control, and (3) importance, and that self-determination is an intersection of all three of these elements. Self-determination is determined by the relations among importance, desired control, and exercised control. Individuals with the greatest self-determination decide what is important to them and decide how much control they want over that

situation. Further, each of these three components can be influenced by a person's environment and their culture (Abery & Stancliffe). Students who have the opportunity and choose to exercise more control of their lives, in areas that they feel are important, may have stronger self-determination abilities, than those students who do not have either the opportunities to exercise control, or choose not to exercise the control they have.

Unfortunately, for this study, data were not collected on students' prior self-determination experience or opportunities, so it is unclear how much, if at all, these prior experiences had on the unexplained variance. Both of these possibilities (student participation in self-determination curriculum and previous self-determination experience) warrant further investigation.

#### *Limitations and Implications for Further Research*

There are several limitations to this study. The study sample was a nonrandomly selected convenience sample of students enrolled in a transition center in a midwestern school district, limiting its generalizability. Generalizations to other populations of special education students should be made with caution. Additionally, because the results are limited to one school district in a midwestern state, assumptions that these results would replicate in other districts and in other states may not be supported.

Although this study does show initial support for the Peper Transition Planning Scale as a reliable and valid measure of self-determination, only some of the self-determination competencies identified by Abery and Stancliffe (2003) in their tripartite ecological theory of self-determination were included. As a result, the Peper Transition Planning Scale may not be a comprehensive self-determination assessment of students'

self-determination knowledge; rather, it appears to be a promising measure that may be useful to teachers, parents, and community representatives in planning students' transition from high school to adult life.

Finally, for this study, each administration of the Peper Transition Planning Scale was tape recorded and inter-rater agreement was used to establish consistency among the raters. Inter-rater agreement was established by an independent scorer listening to one-third of the tape recordings. Future studies should consider using a more extensive inter-rater reliability analysis, perhaps one in which two raters independently score the test live or using some type of video component. In retrospect, using an audiotape with "show me" responses was not realistic. For example, in the area of Communication, it was impracticable, as an independent rater, to score questions that asked the students to show two types of aggressive, passive, and assertive behavior, as well as three examples of non-verbal behavior because I could not see them, I could only hear them. I had to score items based on what the interviewers wrote the students' said or did, not on what I actually observed the students' do. This may have lead to bias in the study and possibly inflated or deflated students' scores.

Given the above limitations, this study should be replicated with larger samples to generalize the results to a broader population of students. With larger samples of students, a more sophisticated item analysis could be performed to understand the relationship between individual questions and their domains on the Peper Transition Planning Scale and allow for further investigation of the problematic questions found in the measure. Future work on the Peper Transition Planning Scale could also include

adding questions to the Knowledge area of the scale to better represent what might be covered across different curricula. Future work could also include research questions such as: To what extent are self-determination skills mediated by direct instruction in self-determination, and by other life experiences?

Ultimately, the purpose of the Peper Transition Planning Scale is to develop a way for teachers to monitor student progress towards IEP goals and to help them improve their transition instruction and programming. Researchers have suggested that to increase student participation in IEP meetings, students should receive direct instruction in developing their self-determination skills (Wehmeyer et al., 2007) and a growing body of research (Allen et al., 2001; Arndt et al., 2006; Martin, Van Dycke, Christensen et al., 2006; Snyder, 2002; Snyder & Shapiro, 1997; Test & Neale, 2004) supports the effectiveness of direct instruction in improving students' self determination and involvement in their transition planning. Given the general consensus that self-determination skills are an important component of transition instruction, it is important that teachers have reliable and valid ways to assess these skills, to determine students' strengths and weaknesses in order to plan effective instructional programming, to monitor their progress in response to that programming, and to evaluate the effectiveness of that instruction. Researchers should thus also examine how effective the Peper Transition Planning Scale is when used for educational decision-making, such as to monitor students' progress in self determination or related IEP goals. Research questions could include: To what extent do teachers modify instruction based on student scores on the



Peper Transition Planning Scales? When teachers use the Peper Transition Planning Scales, does student progress on IEP goals improve?

*Implications for Practice*

This study has several implications for practice. First, educators may choose to use the Peper Transition Planning Scale to assess their students' overall self-determination performance as part of their class and/or curriculum. The Peper Transition Planning Scale may also be useful for educators to assess students' performance in the specific domains of self-determination (Skills, Knowledge, and Attitudes), to determine the amount of control they exercise and desire, as well as what they view as important. The Peper Transition Planning Scale may prove to be a useful tool in which educators can assess student performance in competencies such as goal setting, decision making, problem solving, personal advocacy, and communication; all areas that are essential in transition programming and planning and the IEP process and to Abery and Stancliffe's (2003) tripartite theory of self-determination (Flexer et al., 2008; Grigal et al., 2003; Test, Fowler, Brewer, et al., 2005; Van Reusen & Bos, 1994; Wehmeyer, Palmer, et al., 2000; Wood et al., 2005). On average, the Peper Transition Planning Scale took only 30 min to administer to each student and did not require that any additional forms be completed by another educator or a parent. This important difference between the Peper Transition Planning Scale and other self-determination measures may be attractive to educators and school administrators concerned with the time constraints and paperwork that are often associated with special education practices. Whereas more extensive assessments requiring input from multiple sources are likely to be important for certain purposes, such

as three-year evaluations or placement decisions, the Peper Transition Planning Scale may be more feasible for on-going instructional decision-making.

Second, researchers have demonstrated that instruction in self-determination may be one way to encourage active participation in IEP planning meetings (Hughes & Eisenman, 1996). Through increased awareness and improved self-determination skills, students may experience being important and contributing members of the IEP team and thus, may be more willing to participate in their IEP meetings. If we want our students to increase their participation in IEP meetings, as researchers and educators, we need to have reliable and valid ways to measure students' self-determination skills that directly relate to transition planning. The Peper Transition Planning Scale may be one way for educators to assess student progress in learning the self-determination skills needed to help facilitate their IEP meeting. Another important component of the IEP process is how data will be recorded and collected. Student progress should be monitored and data should be collected to ensure that students are meeting their IEP goals and objectives (Etscheidt, 2006; Flexer et al., 2008). Using the Peper Transition Planning Scale to record and collect data may be another possible use and, as mentioned above, should be explored in future research.

Third, educators may choose to use the Peper Transition Planning Scale to better understand students' knowledge of available transition resources available to them in the community, knowledge of their personal rights and responsibilities, and self-knowledge. As is suggested in the literature, student knowledge of available resources in the community, basic understanding of civil rights and responsibilities, and understanding of

their disability is often limited (Abery, Rudrud, et al., 1995; Eckes & Ochoa, 2005; Flexer et al., 2008). The Peper Transition Planning Scale may help capture students' strengths and areas of need in this area. Students' performance on the scale may reveal programmatic changes that need to be made at the curriculum level (e.g., if most students are lacking a particular skill, it may need to be incorporated into the curriculum) or at the individual level (e.g., if a certain student is lacking a particular skill, his/her instruction should be modified to address that weakness).

Finally, the Peper Transition Planning Scale may prove to be a useful tool in which educators can assess students' performance in determination, locus of control, and self-esteem. The strong reliability and moderate validity in this area suggests that the Peper Transition Planning Scale may be a useful tool to identify students' strengths and areas of need regarding their attitudes and beliefs of self-determination. As demonstrated in the literature, students who participate in self-determination classes and the transition planning process, show greater degrees of self-efficacy and are more likely to believe they can reach their goals (Wehmeyer & Lawrence, 1997; Wehmeyer et al., 2000) further solidifying the importance of having reliable and valid ways to assess students' attitudes and beliefs.

### *Conclusion*

The purpose of this study was to develop and evaluate the technical adequacy of the Peper Transition Planning Scale, which was designed to assess each of the major self-determination domains described by Abery and Stancliffe (2003). The results of this

study extend the self-determination literature in the following ways. First, the Peper Transition Planning Scale appears to be a reliable and valid measure of self-determination, and relies on student performance rather than self- or other-reporting, which can be biased. The Peper Transition Planning Scale also extends the literature by showing promise for measuring student growth in the area of self-determination. Self-determination skills are considered essential as students transition from school to adult-life (Field, 1996; Morningstar et al., 1999); as a result, assessments that measure self-determination in the area of transition are needed. The Peper Transition Planning Scale is supported by preliminary evidence of providing such an assessment.

Table 1  
*Demographic Information for Participants (N=57)*

Variable	<i>n</i> (%)	Mean	( <i>SD</i> )	Range
<i>Age</i>		19.61	(1.07)	18-21
18	11 (19)			
19	14 (25)			
20	18 (32)			
21	14 (25)			
<i>Sex</i>				
Male	32 (56)			
<i>Disability</i>				
ASD	15 (26)			
DCD	12 (21)			
SLD	10 (18)			
OHD	8 (14)			
EBD	5 (9)			
SMI	3 (5)			
PI	2 (4)			
SPL	2 (4)			
<i>Year in Program</i>				
1	24 (42)			
2	14 (25)			
3	18 (32)			
4	1 (2)			

Variable	N (%)	Mean	(SD)	Range
<i>Employed</i>				
Yes	34 (60)			
<i>Ethnicity</i>				
Caucasian	31 (54)			
Black	20 (35)			
Asian	4 (7)			
Hispanic	1 (2)			
Indian	1 (2)			
<i>BST Math</i>				
Pass	20 (35)			
Pass Individual	31 (54)			
Alternative	6 (11)			
<i>BST Reading</i>				
Pass	32 (56)			
Pass Individual	19 (33)			
Alternative	6 (11)			
<i>BST Writing</i>				
Pass	31 (54)			
Pass Individual	19 (33)			
Alternative	7 (12)			
<i>IQ<sup>a</sup></i>		79.67	(14.22)	50-110
<i>Adaptive</i>		78.14	(12.46)	50-110

*Note.* ASD = Autism Spectrum Disorder, DCD=Developmental Cognitive Disability, LD=Specific Learning Disability, OHD=Other Health Disability, EBD=Emotional and Behavior Disability, SMI=Severe Multiple Impairment, PI=Physical Impairment, SPL=Speech and Language Impairment, and BST=Basic Standard Test.

<sup>a</sup> N=54

Table 2

*Descriptive Statistics for Peper Transition Planning Scale (N=57)*

	Mean	(SD)	Range	Skewness	Kurtosis
<i>February Test</i>					
Skills	29.84	(9.26)	5-49	-.28	.07
Knowledge	12.19	(3.30)	2-18	-.63	.85
Attitudes	21.70	(5.69)	8-29	-.73	-.33
Total Score	63.74	(15.91)	18-96	-.49	.49
<i>February Retest</i>					
Skills	30.88	(10.42)	4-51	-.34	-.24
Knowledge	13.07	(3.08)	5-19	-.52	-.34
Attitudes	22.25	(5.96)	7-29	-1.05	.39
Total Score	66.19	(17.36)	21-99	-.59	.04
<i>May Test</i>					
Skills	31.88	(10.26)	4-50	-.51	-.28
Knowledge	14.04	(3.07)	7-18	-.71	-.39
Attitudes	23.32	(5.40)	6-29	-1.49	2.39
Total Score	69.23	(16.51)	24-97	-.68	.07

Table 3

*Descriptive Statistics for Criterion Measures (N=57)*

	Mean	(SD)	Range	Skewness	Kurtosis
<i>Choicemaker</i>					
Choosing Goals	22.00	(7.94)	2-36	-.41	-.07
Expressing Self	25.42	(8.77)	4-44	-.26	.04
Taking Action	58.72	(25.15)	4-124	.23	.48
Total Score	106.14	(40.54)	13-203	-.03	.34
<i>Minnesota Self Determination Scale</i>					
Skills	106.09	(41.76)	32-185	.09	-.80
Attitudes	44.04	(15.24)	11-87	.20	-.18
Knowledge	42.51	(16.31)	4-78	-.03	.16
Total Score	192.63	(68.47)	65-331	.03	-.66



Table 4

*Reliability Analysis for Peper Transition Planning Scale (N=57)*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation
<i>Skills Subscale (Overall M = 30.88; Variance = 108.61)</i>			
Question 1	30.18	102.90	.59
Question 2	29.47	94.40	.35
Question 3	30.02	105.30	.44
Question 4	30.42	103.32	.49
Question 5	30.28	102.42	.59
Question 6	30.05	104.23	.54
Question 7	29.93	106.64	.41
Question 8	30.18	101.15	.32
Question 9	29.02	107.48	.10
Question 10	29.07	103.75	.41
Question 11	30.23	103.00	.55
Question 12	30.11	105.06	.39
Question 13	29.91	107.58	.26
Question 14	28.63	88.20	.47
Question 15	29.23	87.14	.43
Question 16	30.25	105.12	.33
Question 17	28.96	97.75	.39
Question 18	29.19	95.12	.53

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation
Question 19	29.02	96.45	.49
Question 20	29.47	98.33	.56
Question 21	29.09	102.58	.51
Question 22	29.39	99.99	.51
Question 23	29.37	99.52	.61
Question 24	28.72	93.71	.61
<i>Knowledge Subscale (Overall M = 13.07; Variance=9.50)</i>			
Question 25	12.98	9.05	.21
Question 26	12.16	8.92	.29
Question 27	12.07	6.03	.36
Question 28	11.33	8.19	.27
Question 29	12.47	7.97	.46
Question 30	12.42	8.50	.27
Question 31	12.61	8.74	.17
Question 32	12.58	8.61	.22
Question 33	11.11	9.20	.23
Question 34	11.42	7.43	.42
Question 35	11.21	9.24	-.00
Question 36	11.40	7.21	.52
Question 37	20.67	30.01	.62
Question 38	20.79	31.85	.32

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation
<i>Attitudes Subscale (Overall M = 22.25; Variance = 35.47)</i>			
Question 39	20.21	24.71	.59
Question 40	20.93	29.50	.52
Question 41	21.46	31.79	.76
Question 42	20.53	33.86	.22
Question 43	20.47	30.93	.67
Question 44	20.35	34.95	.09
Question 45	20.49	31.22	.65
Question 46	20.70	30.93	.54
Question 47	20.60	29.42	.68
Question 48	21.05	28.05	.65
Question 49	20.42	35.21	.01
Question 49	20.42	35.21	.01
Question 50	20.53	31.18	.57

*Note.* Cronbach's Alpha: Skills Subscale = .84, Knowledge Subscale = .62, and Attitudes Subscale = .84.

Table 5

*Criterion-Related Validity Coefficients for Peper Transition Planning Scale (N=57)*

	Choicemaker Self- Determination Assessment Total	Minnesota Self- Determination Scale Skills	Minnesota Self- Determination Scale Knowledge	Minnesota Self- Determination Scale Attitudes	Minnesota Self- Determination Scale Total
Skills	.56**	.50**	.57**	.49**	.55**
Knowledge	.42**	.38**	.45**	.32*	.41**
Attitudes	.44**	.40**	.51**	.42**	.46**
Total	.56**	.50**	.60**	.49**	.56**

\* $p < .05$

\*\* $p < .01$

*Table 6**Paired Sample T-Tests for Peper Transition Planning Scale February to May (N=57)*

	Mean Difference	<i>t</i> value	<i>p</i> value	<i>ES</i>
Skills	2.04	2.45	.02	.21
Knowledge	1.84	5.36	.00	.58
Attitudes	1.61	3.04	.00	.29
Total	5.5	4.27	.00	.34

Table 7

*Regression Analysis for Variables Predicting Self-Determination Performance*

<i>Variable</i>	<i>B</i>	<i>SEB</i>	$\beta$	<i>t</i> value	<i>p</i> value
<i>Step 1</i>					
Adaptive IQ	.67	.17	.49	4.08	.000
<i>Step 2</i>					
Adaptive IQ	.45	.17	.33	2.62	.012
IQ	.44	.15	.36	2.88	.006
<i>Step 3</i>					
Adaptive IQ	.45	.17	.33	2.59	.013
IQ	.44	.16	.36	2.85	.006
Age	.74	1.90	.04	.39	.701
<i>Step 4</i>					
Adaptive IQ	.46	.18	.34	2.58	.013
IQ	.43	.17	.35	2.55	.014
Age	.68	1.93	.04	.35	.726
Sex	-1.24	4.28	-.04	-.29	.774
<i>Step 5</i>					
Adaptive IQ	.46	.19	.34	2.47	.017
IQ	.43	.17	.35	2.52	.015
Age	.86	3.42	.05	.25	.803
Sex	-1.21	4.34	-.04	-.28	.782
Year in Program	-.25	3.96	-.01	-.06	.950

<i>Variable</i>	<i>B</i>	<i>SEB</i>	$\beta$	<i>t</i> value	<i>p</i> value
<i>Step 6</i>					
Adaptive IQ	.55	.19	.40	2.86	.006
IQ	.42	.17	.34	2.52	.015
Age	1.19	3.37	.07	.35	.726
Sex	-.76	4.29	-.02	-.18	.861
Year in Program	-.14	3.91	-.01	-.04	.971
Employed	6.64	4.28	.19	1.55	.127

*Note.*  $R^2 = .24$  for Step 1;  $\Delta R^2 = .35$  for Step 2;  $\Delta R^2 = .35$  for Step 3;  $\Delta R^2 = .35$  for Step 4;  $\Delta R^2 = .35$  for Step 5;  $\Delta R^2 = .38$  for Step 6.

Table 8

*Regression Analysis for Variables Predicting Skill Performance*

<i>Variable</i>	<i>B</i>	<i>SEB</i>	$\beta$	<i>t value</i>	<i>p value</i>
<i>Step 1</i>					
Adaptive IQ	.42	.09	.53	4.48	.000
<i>Step 2</i>					
Adaptive IQ	.30	.10	.38	3.04	.004
IQ	.24	.09	.34	2.74	.008

*Note.*  $R^2 = .28$  for Step 1;  $\Delta R^2 = .37$  for Step 2.



Table 9

*Regression Analysis for Variables Predicting Knowledge Performance*

<i>Variable</i>	<i>B</i>	<i>SEB</i>	$\beta$	<i>t</i> value	<i>p</i> value
<i>Step 1</i>					
Adaptive IQ	.10	.03	.41	3.26	.002
<i>Step 2</i>					
Adaptive IQ	.06	.03	.24	1.85	.071
IQ	.08	.03	.38	2.87	.006

*Note.*  $R^2 = .17$  for Step 1;  $\Delta R^2 = .29$  for Step 2.

Table 10

*Regression Analysis for Variables Predicting Attitudes Performance*

<i>Variable</i>	<i>B</i>	<i>SEB</i>	$\beta$	<i>t value</i>	<i>p value</i>
<i>Step 1</i>					
Adaptive IQ	.15	.06	.31	2.37	.022
<i>Step 2</i>					
Adaptive IQ	.09	.07	.19	1.33	.191
IQ	.12	.06	.28	1.92	.061

*Note.*  $R^2 = .10$  for Step 1;  $\Delta R^2 = .16$  for Step 2.

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## Appendix A

Interviewer Version

# PEPER TRANSITION PLANNING SCALES

Scoring Rubric

Student ID: \_\_\_\_\_

Student is being interviewed for the 1<sup>st</sup> 2<sup>nd</sup> 3<sup>rd</sup> time. (Circle one)

Date: \_\_\_\_\_

**Directions:**

I will be asking you questions about self-determination as it relates to transition planning. Please answer each question honestly and to the best of your ability.

**Skills Category: Goal Setting**

1) *If you had to explain what transition planning is to another person, what would you say?*

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Possible Correct Answers: helping me to get ready for life after school, helping me reach my goals, teaching me to be more independent

Score: \_\_\_\_/1

2) **What are the areas of transition planning?**

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Answer: Employment, Post-Secondary Education & Training, Community Participation, Recreation & Leisure, Home Living

Score: \_\_\_\_/5

3) *What is one example of an IEP goal in the transition area of **EMPLOYMENT** (or comparable term)?*

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Possible Correct Answers:

get a job  
complete job shadows  
volunteer  
improve work skills  
increase hours at job  
identify references  
names a specific job interested in

complete resume  
improve interviewing skills  
complete job applications  
complete career assessments  
maintain current job  
apply for rehab. counselor  
meet with rehab. counselor

Score: \_\_\_\_/1

4) **What is one example of an IEP goal in the transition area of POST-SECONDARY EDUCATION & TRAINING (or comparable term)?**

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Possible Correct Answers:

tour a technical college	tour a community college
tour a university	attend classes at a technical college
attend classes at a university	attend classes at a community college
take community ed. classes	finish classes at a transition program
obtain high school diploma	participate in an internship
participate in a specific training program	

Score: \_\_\_\_/1

5) **What is one example of an IEP goal in the transition area of COMMUNITY PARTICIPATION (or comparable term)?**

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Possible Correct Answers:

register to vote	vote
obtain my driver's permit	obtain my driver's license
learn about transportation options	learn how to take the bus, taxi, etc.
apply for Metro Mobility	learn to make own appointments
obtain/organize Filemaster	register with Selective Service
access places in the community	apply for a county social worker
obtain a library card	access my local library
obtain a state ID	obtain birth certificate
apply for social security	begin using a day planner
understand my basic legal rights	learn more about the environment
become involved in groups, clubs, and/or organizations in the community	
become familiar with places in the community (such as the post office, doctor's office, etc.)	

Score: \_\_\_\_/1

6) **What is one example of an IEP goal in the transition area of RECREATION & LEISURE (or comparable term)?**

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Possible Correct Answers:

name of a specific activity  
 learn how to make and keep friends  
 increase variety of activities participate in  
 begin initiating activities with peers  
 learn how to arrange transportation to activities

make new friends  
 try new activities  
 participate in Special Olympics  
 learn how to research activities  
 learn how to budget for activities

Score: \_\_\_\_/1

**7) What is one example of an IEP goal in the transition area of HOME LIVING (or comparable term)?**

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Possible Correct Answers:

learn/improve budgeting skills  
 begin to/improve ability to advocate for self  
 learn about housing options available  
 improve cooking skills  
 begin doing own laundry  
 learn about home repairs  
 open a checking account  
 learn how to manage checking account  
 learn about pet responsibility  
 learn how to plan a vacation  
 learn how to comparison shop  
 learn how to complete a tax return  
 improve knowledge regarding sex education  
 learn about types of insurance available

shop for own clothes  
 live independently  
 learn how to cook  
 learn about healthy eating  
 improve personal hygiene  
 improve computer skills  
 open a savings account  
 learn how to bank online  
 learn about disability  
 learn how to pay bills  
 learn about credit & loans  
 learn how to return merchandise  
 learn how to obtain insurance

Score: \_\_\_\_/1

**8) Identify the goals on YOUR IEP.**

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Correct answers—please review the student's IEP to determine correct identification of goals

Scoring:

- Accurate—80-100%: 3 points
- Somewhat Accurate—60-79%: 2 points
- Somewhat Inaccurate—40-59%: 1 points
- Inaccurate—39% and below: 0 points

Score: \_\_\_\_/3

**Total Points: Skills Category—Goal Setting ..... \_\_\_\_/14**

### **Skills Category: Decision Making**

9) Tell me two examples of decisions you have made during the school day.

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Possible Correct Answers: what to eat for lunch, who to sit with during lunch, which transition classes to enroll in, what (if any) classes to enroll in at a technical college , whether or not to attend classes

Score: \_\_\_\_/2

10) Tell me two examples of decisions you have made outside of the school day.

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Possible Correct Answers: what clothes to wear, whether to come to school, what to watch on television, what to eat, who to date, what to do in my free time, who to be friends with, where to work, what music to listen to, what to spend money on

Score: \_\_\_\_/2

11) Describe how your IEP team decided on your IEP goals?

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Possible Correct Answers: discussion, I led my IEP meeting and suggested possible ideas for goals, parent's ideas, case manager's ideas, others' ideas

Score: \_\_\_\_/1

12) Which of your IEP goals did you have input on?

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Correct Answer: student needs to identify a goal(s) from their IEP

Score: \_\_\_\_/1

**13) Who do you feel makes the most decisions regarding your life?**

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Possible Correct Answers: myself, my parents/family, my case manager, my county social worker, my principal, my friends

Score: \_\_\_\_/1

<b>Total Points: Skills Category—Decision Making.....</b>	<b>7</b>
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**Skills Category: Problem Solving**

**14) Tell me about a problem you had to solve. Were you able to solve the problem? If so, how did you solve it? If not, why not? What could you have done differently?**

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Scoring:

- 1 point—identifies problem
- 1 point—were they able to solve problem
- 1 point—how did they solve it OR why did they NOT solve it
- 1 point—what could you have done differently

Score: \_\_\_\_/4

**15) What are the six steps to problem solving?**

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Correct Answer—What is the problem? What are some solutions to the problem? What is the best solution? Pick a solution. DO it. Evaluate it.

Score: \_\_\_\_/6

<b>Total Points: Skills Category—Problem Solving .....</b>	<b>1</b>
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### **Skills Category: Personal Advocacy**

**16) Tell me the name of your disability.**

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(Correct Answer—student must identify their primary disability.)

Score: \_\_\_\_/1

**17) Tell me three ways your disability affects your everyday life?**

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(Correct Answer—student must describe what it means to have their disability or identify characteristics related to their disability.)

Score: \_\_\_\_/3

**18) Tell me three strategies you do for yourself at home, school, or at your job in order to be the most successful?**

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Possible Correct Answers:

use a day planner

meet with social worker

meet with work coordinator

take prescribed medication

meet with case manager

write information down

use a calculator

use a tip card

Score: \_\_\_\_/3

**19) Tell me three strategies others (such as family members, friends, employers, teachers) do for you because of your disability to help you be successful in reaching your goals.**

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Possible Correct Answers:

allow me extra time on tests  
 read information to me  
 give me step-by-step directions  
 help me with my money

provide me a note taker  
 allow me extra time on assignments  
 allow me to take a "time out"  
 drive me places I need to go

Score: \_\_\_\_/3

<b>Total Points: Skills Category—Personal Advocacy .....</b>	<b>____/10</b>
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**Skills Category: Communication**

**20) Show me two examples of passive behavior.**

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(Examples could include: head down, soft voice, avoiding eye contact, not stating an opinion.)

Score: \_\_\_\_/2

**21) Show me two examples of aggressive behavior.**

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(Examples could include: a loud and angry voice, swearing, throwing something, etc.)

Score: \_\_\_\_/2

**22) Show me two examples of assertive behavior.**

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(Examples could include: Using "I" statements, calm body, calm voice, firm handshake, etc.)

Score: \_\_\_\_/2

23) Tell me two reasons why it is beneficial to be assertive rather than to be passive or aggressive.

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(Reasons could include: it comes across as more respectful, it allows your opinion/choices to be known, others will listen to you, etc.)

Score: \_\_\_\_/2

24) Show me three examples of non-verbal communication.

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(Examples could include: hand gestures, facial expressions, and/or body language.)

Score: \_\_\_\_/3

<b>Total Points: Skills Category—Communication.....</b> ____/11
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### Knowledge Category: Knowledge of Laws, Rights, & Responsibilities

25) According to the law, at what age are students invited to attend their IEP meetings?

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Correct Answer: 14

Score: \_\_\_\_/1

26) Tell me at what age does transition programming end?

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Correct Answer: 21

Score: \_\_\_\_/1

**27) Tell me three civil rights related to your disability.**

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Possible Correct Answers:

equal access to education  
 equal access to parenthood  
 equal access to political rights  
 access to public buildings

equal access to employment  
 equal access to property ownership  
 equal access to legal representation  
 reasonable accommodations

Score: \_\_\_\_/3

**28) Tell me two places you would go and/or two people with whom you would talk to if you felt that any of your civil rights were being violated?**

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Possible Correct Answers: rehab. counselor, county social worker, school social worker, police, parent/family, teacher, case manager, guardian, adult protection, principal, lawyer, boss, group home staff

Score: \_\_\_\_/2

**Total Points: Knowledge Category—Knowledge of Laws, Rights, & Responsibilities \_\_\_\_/7**

### **Knowledge Category: Knowledge of Resources & Systems**

**29) Tell me one resource you will have available to you once your transition programming ends?**

Possible Correct Answers: state workforce center, county social worker, group home, therapist, personal care assistant, psychologist, psychiatrist, counselor, family/parents

Score: \_\_\_\_/1

**30) Tell me how you would access a resource in the future if you needed one?**

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Possible Correct Answers: talk to my parents, ask my rehab. counselor, ask my Hennepin County social worker, ask my case manager, ask my group home staff, call the United Way

Score: \_\_\_\_/1

**31) Tell me what services the Minnesota Resource Center (or comparable agency) and/or a rehabilitation counselor can offer you?**

Possible Correct Answers: help me in the area of employment once I graduate from OSTC, can help me find a job, can help me with training for a job, can help me pay for vocational training, can help me with my SSI, can help me write a resume

Score: \_\_\_\_/1

**32) Tell me what services a county social worker can offer you?**

Possible Correct Answers: help with housing, help with financial assistance, help with employment, help with getting a personal care assistant, help with getting semi-independent living skills services

Score: \_\_\_\_/1

**Total Points: Knowledge Category—Knowledge of Resources & Systems.....\_\_\_\_/4**

**Knowledge Category: Self-Knowledge**

**33) Tell me two of your personal strengths.**

\_\_\_\_\_  
\_\_\_\_\_

Answers could be academic skills, work skills, athletic abilities, relationship/social skills, etc.

Score: \_\_\_\_/2

**34) Tell me two of your personal weaknesses (what you have difficulty with.)**

\_\_\_\_\_  
\_\_\_\_\_

Answers could involve academic skills, work skills, athletics, relationship/social skills, etc.

Score: \_\_\_\_/2

35) Tell me two of your personal interests.

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Answers could be school-related, work-related, having to do with the environment, involving animals/pets, religion, politics, hobbies, recreation & leisure activities, etc.

Score: \_\_\_\_/2

36) Tell me two of your personal values.

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Answers could involve religion, politics, relationships, morals, ethics, etc.

Score: \_\_\_\_/2

<p><b>Total Points: Knowledge Category—Self-Knowledge.....</b>_____/8</p> <p><b>Attitudes &amp; Beliefs Category: Sense of Determination</b></p>
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37) Tell me two ways you will achieve your goals.

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Answers could include: working hard, asking for help, not giving up, attending school regularly

Score: \_\_\_\_/2

38) Tell me two examples of new things you have tried.

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Answers could include: new job, new duties at a job, new recreation & leisure activity, new food, meeting new people, etc.

Score: \_\_\_\_/2

39) Tell me four ways you are challenging yourself at work or school.

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Answers could include: working additional hours, trying new job duties, trying to not miss any days scheduled to work, trying to communicate assertively, working on their IEP goals, attending class regularly, etc.

Score: \_\_\_\_/4

**40) Tell me about the progress you have made on two of your IEP goals this school year.**

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Answers could include progress of any goals in any of the 5 transition areas—employment, post-secondary education & training, community participation, recreation & leisure, and/or home living.

Score: \_\_\_\_/2

**41) Give me an example of how you could still reach your goals if something was standing in your way.**

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Answers could include: asking others for help, never giving up, believing in self, etc.

Score: \_\_\_\_/1

**42) Tell me where you would like to be living and working five years from now?**

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Answers will vary. Student will earn 1 point for identifying where they would like to live and 1 point for where they would like to work.

Score: \_\_\_\_/2

**Total Points: Attitudes & Beliefs Category—Sense of Determination..... /13**

### Attitudes & Beliefs Category: Locus Of Control

**43) Do you believe you will achieve your goals? Why or why not?**

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Answers will vary. Student will earn 1 point for answering yes or no, and 1 point for justification of answer.

Score: \_\_\_\_/2

**44) Do you believe you will earn your high school diploma? Why or why not?**

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Answers will vary. Student will earn 1 point for answering yes or no, and 1 point for justification of answer.

Score: \_\_\_\_/2

**45) Is achieving your goals important to you? Why or why not?**

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Answers will vary. Student will earn 1 point for answering yes or no, and 1 point for justification of answer.

Score: \_\_\_\_/2

**46) Do you feel your effort and actions will have an impact on your future? Explain why or why not.**

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Answers will vary. Student will earn 1 point for answering yes or no, and 1 point for justification of answer.

Score: \_\_\_\_/2

**Total Points: Attitudes & Beliefs Category—Locus of Control.....\_\_\_\_/8**

**Attitudes & Beliefs Category: Self-Esteem/Self-Concept**

**47) Give me an example of a goal you achieved in the past and why you are proud of achieving that goal.**

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Answers will vary. Student will earn 1 point for stating a goal and 1 point for explaining why proud of achieving the goal.

**Score: \_\_\_\_/2**

**48) Give me an example of a goal you were unable to achieve in the past. Why were you unable to achieve that goal?**

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Answers will vary. Student will earn 1 point for stating a goal and 1 point for explaining why unable to achieve the goal.

**Score: \_\_\_\_/2**

**49) Do you believe your IEP team assists you in reaching your goals? Why or why not?**

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Answers will vary. Student will earn 1 point for yes/no answer and 1 point for explaining why or why not.

**Score: \_\_\_\_/2**

**50) Have you accepted your disability? Explain why or why not.**

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Answers will vary. Student will earn 1 point for yes/no answer and 1 point for explaining why or why not.

**Score: \_\_\_\_/2**

**Total Points: Attitudes & Beliefs Category—Self-Esteem/Self-Concept...../8**



<b>Skills</b>	
<b>Goal Setting</b>	/14
<b>Decision Making</b>	/7
<b>Problem Solving</b>	/10
<b>Personal Advocacy</b>	/10
<b>Communication</b>	/11
<b>Knowledge</b>	
<b>Laws, Rights, &amp; Responsibilities</b>	/7
<b>Resources &amp; Systems</b>	/4
<b>Self-Knowledge</b>	/8
<b>Attitudes &amp; Beliefs</b>	
<b>Sense of Determination</b>	/13
<b>Locus of Control</b>	/8
<b>Self-Esteem/Self-Concept</b>	/8
<b>TOTAL POINTS</b>	<b>/100</b>

Interviewed by:

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## Demographic Information

Directions: please ask the student the following demographic questions. This information is optional. If the student would prefer not to answer the questions, thank them for participating in the study.

Age: \_\_\_\_\_

Gender: \_\_\_\_\_

Disability: \_\_\_\_\_

Year in Transition Program: \_\_\_\_\_

Employed: \_\_\_\_\_

Ethnicity: \_\_\_\_\_

BST Scores:

Math \_\_\_\_\_

Reading \_\_\_\_\_

Writing \_\_\_\_\_

Full Scale IQ \_\_\_\_\_

Appendix B

Student Version

PEPER  
TRANSITION  
PLANNING SCALES

**Directions:**

I will be asking you questions about self-determination as it relates to transition planning. Please answer each question honestly and to the best of your ability.

**Skills Category: Goal Setting**

1) *If you had to explain what transition planning is to another person, what would you say?*

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2) *What are the areas of transition planning?*

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3) *What is one example of an IEP goal in the transition area of EMPLOYMENT (or comparable term)?*

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4) *What is one example of an IEP goal in the transition area of POST-SECONDARY EDUCATION & TRAINING (or comparable term)?*

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5) *What is one example of an IEP goal in the transition area of COMMUNITY PARTICIPATION (or comparable term)?*

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6) *What is one example of an IEP goal in the transition area of RECREATION & LEISURE (or comparable term)?*

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7) *What is one example of an IEP goal in the transition area of HOME LIVING (or comparable term)?*

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8) *Identify the goals on YOUR IEP.*

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### **Skills Category: Decision Making**

9) Tell me two examples of decisions you have made during the school day.

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10) Tell me two examples of decisions you have made outside of the school day.

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11) Describe how your IEP team decided on your IEP goals?

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12) Which of your IEP goals did you have input on?

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13) Who do you feel makes the most decisions regarding your life?

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---

**Skills Category: Problem Solving**

14) Tell me about a problem you had to solve. Were you able to solve the problem? If so, how did you solve it? If not, why not? What could you have done differently?

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15) What are the six steps to problem solving?

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**Skills Category: Personal Advocacy**

16) Tell me the name of your disability.

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17) Tell me three ways your disability affects your everyday life?

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18) Tell me three strategies you do for yourself at home, school, or at your job in order to be the most successful?

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19) Tell me three strategies *others (such as family members, friends, employers, teachers) do for you* because of your disability to help you be successful in reaching your goals.

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**Skills Category: Communication**

20) Show me two examples of passive behavior.

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21) Show me two examples of aggressive behavior.

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---

---

22) Show me two examples of assertive behavior.

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23) Tell me two reasons why it is beneficial to be assertive rather than to be passive or aggressive.

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---

---

24) Show me three examples of non-verbal communication.

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**Knowledge Category: Knowledge of Laws, Rights, & Responsibilities**

25) According to the law, at what age are students invited to attend their IEP meetings?

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26) Tell me at what age does transition programming end?

---

27) Tell me three civil rights related to your disability.

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---

28) Tell me two places you would go and/or two people with whom you would talk to if you felt that any of your civil rights were being violated?

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**Knowledge Category: Knowledge of Resources & Systems**

29) Tell me one resource you will have available to you once your transition programming ends?

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---

30) Tell me how you would access a resource in the future if you needed one?

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---

31) Tell me what services the Minnesota Resource Center (or comparable agency) and/or a rehabilitation counselor can offer you?

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32) Tell me what services a county social worker can offer you?

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**Knowledge Category: Self-Knowledge**

**33) Tell me two of your personal strengths.**

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**34) Tell me two of your personal weaknesses (what you have difficulty with.)**

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**35) Tell me two of your personal interests.**

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**36) Tell me two of your personal values.**

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**Attitudes & Beliefs Category: Sense of Determination**

**37) Tell me two ways you will achieve your goals.**

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**38) Tell me two examples of new things you have tried.**

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**39) Tell me four ways you are challenging yourself at work or school.**

---

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**41) Give me an example of how you could still reach your goals if something was standing in your way.**

---

---

**42) Tell me where you would like to be living and working five years from now?**

---

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**Attitudes & Beliefs Category: Locus Of Control**

**43) Do you believe you will achieve your goals? Why or why not?**

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**44) Do you believe you will earn your high school diploma? Why or why not?**

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**45) Is achieving your goals important to you? Why or why not?**

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**46) Do you feel your effort and actions will have an impact on your future? Explain why or why not.**

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**47) Give me an example of a goal you achieved in the past and why you are proud of achieving that goal.**

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**48) Give me an example of a goal you were unable to achieve in the past. Why were you unable to achieve that goal?**

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**49) Do you believe your IEP team assists you in reaching your goals? Why or why not?**

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**50) Have you accepted your disability? Explain why or why not.**

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