Effects of possible selves instruction on self-determination of students with learning disabilities

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EFFECTS OF POSSIBLE SELVES INSTRUCTION ON SELF-DETERMINATION OF
STUDENTS WITH LEARNING DISABILITIES

by

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Effects of Possible Selves Instruction on Self-Determination
of Students with Learning Disabilities

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Doctor of Philosophy in Special Education

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ABSTRACT

Effects of Possible Selves Instruction on Self-Determination of Students With Learning Disabilities

by

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Students with disabilities face a difficult transition from high school to adult life. In the areas of employment and post secondary education students with disabilities have difficulty being successful (National Council on Disability, 2004; U.S. Census Bureau, 2004). The need for students with disabilities to be adequately prepared for the transition from school to adult life has been stated in government reports and research (Raskind, Goldberg, Higgins, & Herman, 1999; Wehmeyer, 1999; Field, Sarver, & Shaw, 2003; National Council on Disability, 2004; Reiff, 2004).

The purpose of this study was to investigate the effects of the Possible Selves program (Hock, Schumaker, & Deshler, 2003) with a supplemental disability awareness lesson on perceptions related to self-awareness, self-advocacy, and goal setting among adolescents with disabilities, their teachers and their parents. Participants were 27 high school students with learning disabilities, two Learning Strategies Specialists, and 27 parents.
A total of 10 intact classes were randomly assigned to either the treatment or control group. Both groups received a Disability Awareness Lesson. The treatment group received subsequent instruction using a Possible Selves program; whereas the control group received instruction in applied communication skills. The Student Rating Checklist, Student Rating by Teacher Checklist, and Student Rating by Parent Checklist were used to measure perceptions related to self-awareness, self-advocacy skills, and goal setting abilities. The Student Narrative Measurement was used to supplement these data.

Using a one-way repeated measures ANOVA to analyze the data, all students' perceptions of their self-awareness, self-advocacy skills, and goal setting abilities significantly increased from pre-test to post-test with no significant difference between groups. Using a one-way between groups ANOVA to analyze the data, student perceptions related to self-awareness, self-advocacy skills, and goal setting skills at post-test were significantly higher than both teacher perceptions and parent perceptions of students’ skills. Using descriptive statistical measures, the results of this study demonstrate that high school students can learn the Possible Selves program in 14 hours of instructional time.
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CHAPTER 1

INTRODUCTION

Issues facing the successful outcomes for students with disabilities as they leave school and navigate through their adult lives are important to consider. According to the 2000 U.S. Census report, 28.9% of families reported having at least one family member identified with a disability. These families were more likely to be unemployed and receiving Social Security income. They also were more likely to live in poverty. The rate was 12.8%, compared to the rate of poverty among all families, which was 9.2%. It is important to consider the effect of these data on families and how the experiences of families affect the outcomes of individual members within that family. In 1999, the median family income for all families was $54,046.00 and the median income for families with a family member with a disability was $39,155.00. The U.S. Census Bureau data were not specific to a particular disability category but were inclusive of all categories.

In 2004, the National Council on Disability reported that more than 40% of adults with disabilities had not earned a high school diploma and that the dropout rate for students with disabilities was three to four times higher than the rate for their typically achieving peers. According to the U.S. Census Bureau (2004) individuals with disabilities were more likely to live in poverty than their typically achieving peers, (i.e., 27% of people with disabilities compared to approximately 13% of the general population). The
2004 Census Bureau also reported that employment for individuals with disabilities was limited in the type and amount of work that an individual performs. Further, individuals with disabilities earn a lower median income than their non-disabled peers.

Researchers involved in the National Longitudinal Transitional Study 2 (Wagner, Newman, Cameto, & Levine, 2005) surveyed youth with and without disabilities who had been out of high school for at least two years. According to their findings, students without disabilities were two to four times more likely to attend a two-year or four-year college or university than their peers with disabilities. Only one in five individuals identified with emotional disturbance was enrolled in a postsecondary education institution.

Gender differences for students with disabilities were found related to attendance at postsecondary institutions. Females with disabilities were more likely to attend two-year colleges, if they pursued education. Males with disabilities were more likely to attend four-year universities. Females with disabilities were more likely to be married with children two years after high school graduation and they were more likely to drop out of high school prior to graduation than their male counterparts (Wagner et al., 2005).

The employment outcomes of the individuals with disabilities included in the study were just as bleak. Two years after leaving high school, 39% of individuals with disabilities were employed in full-time positions and earning minimum wage. When the minimum wage was adjusted for inflation, these 2005 earnings had not changed from the earnings reported in an earlier study conducted by the same researchers in 1985. The 2005 study revealed a gap between the real wages of individuals with and without disabilities. The researchers concluded that this gap was likely to continue because individuals with disabilities were less likely to graduate from colleges or universities than
individuals without disabilities. Moreover, fewer individuals with disabilities were enrolled in job training that would lead to meaningful employment or that was required as a term of employment (Wagner et al., 2005).

Although researchers and educators now are aware of the negative postsecondary outcomes for individuals with disabilities, this awareness has evolved slowly as school-based provisions for students with disabilities have been introduced into the public education system. As services for students with disabilities were introduced into schools, the need to evaluate the outcomes of these services logically followed.

Emergence of Services for Students with Disabilities

Major transformations have occurred in public education throughout the 20th century. In 1954, the U.S. Supreme Court unanimously decided that school segregation was unconstitutional. The Brown v. Board of Education decision was unique in that Chief Justice Earl Warren, the principle author of the decision, did not rely on legal precedent. Instead, he relied on the sociological argument that segregated schools placed Black children at life-long disadvantage (Kelly & Harbison, 1976). Despite the social battles that ensued over the next decades to enforce this decision in public schools across the country, it was used as a founding principle in the struggle to include students with disabilities in public school settings. PARC v. Commonwealth of Pennsylvania (1972) and Mills v. Board of Education of D.C. (1972) were two cases that were decided in favor of students with disabilities to attend public schools and affirmed their right to a free and appropriate public education (Smith, 2004).

Legislation to support these Supreme Court decisions and the civil right of students with disabilities to receive instruction appropriate for their needs and in the least
restrictive environment has been necessary. Section 504 of the Rehabilitation Act of 1973 and Americans with Disabilities Act (ADA) of 1990 guaranteed the civil rights of individuals with disabilities. The Individuals with Disabilities Education Act (IDEA) and its reauthorizations and amendments (1975, 1986, 1990, 1997, and 2004) further solidified the right of individuals to receive individualized instruction in the least restrictive environment. Beginning with the 1990 reauthorization and amendments, IDEA mandated that transition needs and services be identified, planned for, and strategies taught to support the needs of students with disabilities. This mandate was continued in subsequent reauthorizations.

Adequately preparing students for the transition from high school to their adult life is critical in assuring successful outcomes. The National Joint Committee on Learning Disabilities (NJCLD) in a 1994 position paper stated the need for coordinated planning among school, home, and employment prior to graduation from high school as a means of successfully preparing students to be successful. The NJCLD further reported the concern that many students with learning disabilities do not even consider postsecondary education options because they do not receive adequate preparation, assistance, and/or encouragement while still in school (NJCLD, 1994).

Wagner, Newman, Cameto, Garza and Levine (2005) reported similar findings as part of the National Longitudinal Transition Study 2 (NLTS2). This study consisted of interviews with individuals with disabilities who were no longer in high school. The interviews were conducted with individuals and their parents and covered the 1993-4 through 2001-02 school years. In Chapter 3 of the 2005 analysis of the data collected during the NLTS2 study, it was reported that while the drop out rates of individuals with disabilities improved for most disability categories, many individuals were not enrolled in
post-secondary education settings because they did not possess the necessary self-advocacy skills. Similarly, in Chapter 4 of the same NLTS2 analysis, it was reported that self-disclosure of a disability is required in order to receive accommodations in post-secondary education settings, and consequently most students with disabilities are not receiving needed supports.

Clark (1996) recommended that educational professionals assess the needs and interests of students with disabilities using both informal and formal assessment tools. Clark also provided eight recommendations for conducting such assessments. First, basic questions of who am I and what do I want to do, now and in the future need to be addressed. Second, assessment should be ongoing, preferably as early as possible but certainly by age 16, as required by IDEA. Third, multiple types of tests should be used (i.e., informal, standardized, qualitative, group, individual, educational, professional) in order to obtain a more complete idea of the student’s aptitudes and interests. Fourth, the three-year psychological reevaluations should be conducted with the future needs and placements of the student in mind. Fifth, educators should avoid using assessments that are routinely administered for all students. In order to specifically identify the areas of strength and need for an individual student, the battery of tests used needs to be designed to identify the present levels of functioning for that student. Sixth, the data obtained from the assessments should be organized in a manner that is easily accessible to all of the individuals who need it (i.e., teachers, parents, students, professionals from community agencies). Seventh, an individual at the school should be identified as the person with primary responsibility for coordinating and supervising the assessment process to assure that assessments are completed and that the results are used. Eighth, cultural and
linguistic differences must be considered during the assessment process and in disseminating the information to all of the identified parties.

According to Clark (1996), it is through the accurate and specific assessment of abilities and interests that educators can then design instructional programs and materials. In order for students with disabilities to experience successful adult outcomes, it is essential that they have the opportunity to develop skills prior to graduation from high school.

Researchers have found that there is a disconnect between employers and employees with disabilities (i.e., emotional and behavioral disorders and learning disabilities, related to performance of work-related tasks) and that this disconnect provides an opportunity for educators (Carter & Wehby, 2003; Gerber & Price, 2003). Employers tend to rate the job performance of students with emotional and behavioral disorders lower than the self-rating of those employees (Carter & Wehby, 2003). Students need to have specific vocational training prior to graduating from high school. The specific job skills needed for an individual student should be identified in a questionnaire completed by the student that identifies vocational interests. Further, it may be necessary to locate employment in settings that provide consistent and ongoing employee training and support to assure the success of students with disabilities.

Gerber and Price (2003) found that employers might be confused by the term learning disabilities and what it means for their compliance with ADA. It is, therefore, incumbent upon the employee with a disability to weigh the costs and benefits of self-disclosure. As employers are uncertain as to how a disability manifests itself with different individuals, it is becoming an employer expectation that employees with disabilities self-advocate. Employees with disabilities need to know what their disability is and how it affects their
ability to organize and complete tasks. As employers face important financial
considerations, they seek to retain employees that are the most productive for the
company. Employees with and without disabilities face the possibility of losing their job
due to downsizing and being laid off or fired. Therefore, it is important for employees
with disabilities to learn how to navigate the workplace and understand these very real
consequences of competitive employment (Gerber & Price, 2003). Thus, it is incumbent
upon educators to be familiar with these issues and to provide instruction for students
with disabilities prior to graduation as part of the transition process.

Results for postsecondary educational settings are similar to employment settings.
Students with disabilities need to be provided with instruction that is specific to their
future expectations. Brinckerhoff, Shaw, and McGuire (1992) found that one of the
biggest differences between high school and college is the amount of independent reading
and study time. Students with disabilities need to learn to plan for this. There is greater
freedom of choice for students in college than students in high school. Students with
disabilities need to be made aware of this difference and to learn strategies to foster
effective use of time and study skills. Students need to learn that while it is the
responsibility of the academic institution to provide accommodations, it is their
responsibility to inform appropriate personnel in a timely manner. Without self-
disclosure, college personnel may not be able to provide adequate accommodation for the
specific disability in a timely manner (Brinckerhoff et al., 1992).

Rogan et al. (1993) developed a program for high school students with disabilities
who were identified with the potential to attend college. The program spanned the four
years of high school, included 44 activities that addressed eight general needs areas. The
eight areas included the following: (a) self-awareness that addressed awareness of their
disability and how it effects their learning and planning, (b) career awareness that included discussion groups designed to learn about the different types of postsecondary settings and which would be most beneficial for individuals, (c) assessment that addressed the skills requisite for success in college, (d) planning that involved goal setting and planning, (e) programming that involved specific instruction in strategies, curriculum and the use of appropriate and reasonable accommodations, which could be used in planning individualized educational plans as well as for future goals, (f) parent involvement for the entire four years that kept them informed of content and progress towards goals, (g) addressing the need to continue productivity during the summer, and (h) college searches that included students and their parents and identified programs to meet the specific needs of the student with a disability.

Simultaneous to researchers identifying the need to specifically instruct students for transition from high school, the passage of the No Child Left Behind Act (NCLB) in 2001 marked a sweeping change in public education. NCLB represents the culminating piece of legislation in the movement toward standards-based education. The law requires achievement testing annually from third through eighth grades and high-stakes testing for high school students as a requirement for graduation. Students with disabilities must be included in the testing without accommodations for their individual instructional and educational requirements as delineated in their Individualized Education Program (IEP). The focus of this piece of legislation is on the academic achievement of students based on a pre-identified criterion.
Emergence of Self-Determination Among Students with Disabilities

Concurrent to the emergence of services for students with disabilities, there also has been an emergence of knowledge related to the importance of self-determination. There has been a change in attitude with regard to the voice of individuals with disabilities. Early in the 20th century, medical doctors played a primary role in speaking for individuals with disabilities. Doctors greatly influenced decisions related to appropriate educational placement and treatment of their patients with disabilities. In the aftermath of World War II, parents became the central focus of decision making for individuals with disabilities. Parents were eventually recognized as the voice for their sons and daughters. Vocational rehabilitation became increasingly popular as a means of treating wounded soldiers and this was extended to individuals with disabilities (Wehmeyer, Bersani, & Gagne, 2000).

In the last decade of the 20th century, a third change of focus occurred. There was a growing understanding and expectation among stakeholders of the necessity for individuals with disabilities to learn to speak for themselves. The self-advocacy movement is increasingly becoming the driving force for voice and change within the disability community. Increasingly, individuals with disabilities have set and pursued their own goals in all aspects of life (Wehmeyer, Bersani, & Gagne, 2000).

Self-determination has become an increasingly important and valid principle of educating students with disabilities. Researchers have demonstrated in their studies that more positive adult outcomes can be realized if individuals with disabilities learn to behave in self-determined ways (Field, Sarver, & Shaw, 2003). Ryan and Price (1992) stated that individuals with learning disabilities must possess a clear and realistic
knowledge of their disability in order to be successful and empowered in social, familial, academic, and vocational secondary and post-secondary settings.

With the passage of the IDEA (2004), educators and parents need to assure that students are meaningfully involved in the development of their IEPs and in their transition plans. The body of literature on self-determination provides a basis for instruction and action. Components of self-determination include, but are not limited to, making choices and decisions, taking risks, solving problems and setting goals, developing an internal locus of control, self-regulating, monitoring, reinforcing, and advocating, and becoming self-aware. Students learn to develop the following four characteristics of being a causal agent in their lives: (a) act autonomously, (b) self-regulate actions, (c) demonstrate empowered attitude in initiating and responding to events, and (d) act in a self-realizing style (Wehmeyer, 1999).

An integral part of self-determination is the ability of the individual to understand and state his or her strengths and weaknesses. This is particularly important as students transition from high school to postsecondary settings and must articulate their needs to authority figures (e.g., employers, instructors). To access supports through the ADA, young adults must self-disclose their disability and express their needs. This requires self-awareness related to the disability (Adelman & Vogel, 1990; Cunconan-Lahr & Brotherson, 1996; Hoffman & Field, 1995; Raskind, Goldberg, Higgins, & Herman, 1999; Van Reusen & Bos, 1994; and Wehmeyer & Schwartz, 1997, 1998). It also requires self-advocacy. Fortunately, educators and researchers have begun to recognize the importance of providing instruction to help students develop self-awareness and self-advocacy.
Self-Awareness

In *Merriam Webster’s Collegiate Dictionary* (Mish, 2001, p. 80), the word ‘aware’ is defined as, “...having or showing realization, perception, or knowledge...aware implies vigilance in observing or alertness in drawing inferences from what one experiences...” (p. 80). From this definition it would seem that self-awareness of one’s ability and disability requires a basic knowledge that continues to evolve as the individual grows, changes, and experiences different life situations.

Erik Erikson (1966) wrote about eight stages of human development. These stages were, in chronological order; (a) basic trust vs. basic mistrust, (b) autonomy vs. shame and doubt, (c) initiative vs. guilt, (d) industry vs. inferiority, (e) identity vs. role confusion, (f) intimacy vs. isolation, (g) generativity vs. stagnation, and (h) ego integrity vs. despair. Erickson maintained that these stages or ages of man were natural and all humans developed according to these stages (Erikson, 1966).

The fifth stage, identity vs. role confusion, represents the age of adolescents and is pertinent to this discussion. It is in this stage that adolescents begin to understand and represent themselves as individuals separate from their parents. Usually this means that adolescents begin to identify themselves as more or less like their peers. All of this is done so that a distinct identity can emerge. It is during this stage that adolescents develop a sense of self. Clearly, this development can be negative or positive depending upon the experiences of the individual (Erikson, 1966).

Adding to the development of the individual, Markus and Nurius (1986) discussed the importance of developing a possible selves framework for developing self-knowledge. There are three possible selves: (a) the one we would like to become, (b) the one we could become, and (c) the one we fear becoming. By identifying the three possible selves,
individuals are able to learn how their current behavior is directed by their self-knowledge. For individuals with disabilities, these possible selves are important in order to participate meaningfully in life decisions and related outcomes.

Gerber, Reiff, and Ginsberg (1996) discussed the importance of reframing learning disabilities as a means of achieving success as an adult. The process of reframing involves identifying strengths and acting in ways to maximize those strengths while maintaining an understanding of limitations that may interfere with the expression of identified strengths. The four component parts of reframing include recognition, understanding, acceptance, and action. The first three component parts imply developing an understanding of self including an understanding of one's disability without allowing the disability to subsume all other personality characteristics; to understand and view one's disability as only one part of self-knowledge. Gerber et al. (1996) used this model to help adults achieve success in employment.

Raskind et al. (1999) conducted a longitudinal follow up study in which adults with learning disabilities who attended the Frostig Center in Pasadena, California were interviewed. Interviews were conducted with individuals 20 years after they graduated from the center. Participants were asked questions regarding employment, education and interpersonal relationships. During the course of the interviews, constructs of success emerged. Self-awareness was found to be one of the most important success constructs. They operationally defined self-awareness as the ability of an individual to compartmentalize their disability as only one aspect of self and to be able to discuss strengths and weaknesses with more emphasis on the former.
Self-Advocacy

In addition to self-awareness, self-advocacy has been identified as one of the component parts of self-determination. In the 1990s, organizations dedicated to educating and supporting individuals with disabilities to be self-advocates developed and gained popularity. Self-advocacy is a construct that is complex and includes the following: (a) awareness and acceptance of the disability, (b) knowledge of laws and policies governing disabilities, and (c) instruction in problem-solving and assertiveness behaviors (Hicks-Coolick & Kurtz, 1997). Students learn to act upon the self-learning by speaking directly with teachers and other authority figures. This is an essential skill to learn and develop as students transition from high school to postsecondary education and/or employment settings.

In 2005, Test, Fowler, Wood, Brewer, and Eddy developed a framework to conceptualize self-advocacy. This framework was developed as a result of conducting a literature review and seeking input from stakeholders (e.g., individuals with disabilities, parents, researchers, instructors, and curriculum developers). The framework contains the four components of knowledge of self, knowledge of rights, communication and leadership. Knowledge of self and rights emerged as the foundational pieces in order for an individual to self-advocate. The communication component emerged due to its importance in learning how to negotiate, problem solve, and exhibit assertive behavior. Leadership emerged as an important component related to the ability to take the skills necessary for self-advocacy and become an advocate for others with similar needs and concerns (i.e., becoming part of an organization of advocacy).
Test, Fowler, Brewer and Wood (2005) conducted another literature review of self-advocacy studies with important implications for instruction and support of students with disabilities. The results of their review provided evidence that students with varying age and disability could learn skills to self-advocate. They also maintained that teachers needed to be supported in developing skills to instruct students with disabilities to self-advocate. A theme that emerged from this literature review is that preparation for and participation in IEP meetings may provide a natural setting for teaching students with disabilities appropriate self-advocacy skills. The instruction needs to be conducted in such a way as to promote the generalization of the use of these skills once mastered.

These two literature reviews establish the need for students to gain and retain self-knowledge and to learn to speak for themselves. In addition to the development of self-awareness and self-advocacy skills, students also need to gain confidence in goal setting in order to exercise self-determination.

**Goal Setting**

An integral part of self-determination is the empowerment of individuals with disabilities (Clark, Olympia, Jensen, Heathfield, & Jenson, 2004; Wehmeyer, 2005). Empower is defined as “...to promote the self-actualization or influence of...” (Mish, 2001, p. 378). In reference to self-determination, empowerment represents the ability of individuals with disabilities to make decisions regarding their lives free from the excessive influence of others. Goal setting is an integral part of making decisions and therefore, self-determination.

Wehmeyer (2005) found that developing and working towards goals based on self-knowledge was integral to developing self-determination skills. Wood, Fowler, Uphold, and Test (2005) conducted a review of literature and concluded that goal setting was
among the self-determination skills that needed to be taught more systematically. Students needed to learn the importance of setting goals and how to plan and work towards meeting them prior to graduating from high school.

Modern education is focused on accountability issues related to prescribed academic standards and curricula. This may lead students to be passive in their education and therefore, their lives. Goal setting requires that students be active participants in the decisions that affect them. Students must use problem-solving and self-evaluation skills in the process of setting and working towards goals. Goal setting also helps teachers be more effective because they are assuring that the students’ needs, hopes, and desires are acknowledged and validated (Rader, 2005). Teachers and students work together on the following six steps for successful goal achievement: (a) choose a specific goal and write it down, (b) decide on a time when the goal will be achieved, (c) develop a plan for achievement of the goal, (d) visualize the accomplishment of the goal, (e) work hard, and (f) learn to self-evaluate. Teachers support this process by providing specific and positive praise and feedback, helping students remain realistic in their time frames, instructing students to be aware of possible pitfalls and needed resources, and instructing students in writing short-term and long-term goals in academic and life settings (Rader, 2005).

Statement of the Problem

Individuals with disabilities experience poorer adult outcomes in the areas of employment and postsecondary education than their typically achieving peers as identified by the U.S. Census Bureau (2004) and the National Council on Disability (2004). These entities have compiled data from large populations of individuals with disabilities and have reported their findings. Students with disabilities tend to be either
unemployed or underemployed at a higher rate than their typically achieving peers. Students with disabilities are less likely to graduate from high school and from two-year and four-year colleges and universities as well. Likewise, researchers have reported on the difficulties of individuals with disabilities to make successful transitions from public school settings to employment and higher education settings (Gerber et al., 1996; Raskind et al., 1999). Researchers have studied the attributes that individuals with disabilities need to possess to be successful as adults and identified self-awareness, self-advocacy, and goal setting as being particularly important (Raskind et al., 1999; Wehmeyer & Schwartz, 1998; Wehmeyer, et al., 2003).

Despite legislation at the federal level designed to establish and support the civil rights of individuals with disabilities in education and employment (IDEA, ADA, and Section 504 of the Rehabilitation Act of 1973), students continue to have difficulty in post-secondary settings. Clearly, the identification of transition needs and the development of a plan for the transition have not been as effective as educators hoped. It appears that individuals with disabilities need additional support to be successful in post secondary settings. It is reasonable to assume that this support should begin prior to leaving high school, so that students are better prepared to meet the demands they will face.

Once a student has graduated and is employed or enrolled as a student at a higher education campus, ADA and Section 504 of the Rehabilitation Act of 1973 become the governing pieces of legislation. Students have the right to legal recourse if any authority has discriminatory practices established and/or they experience a denial of their rights. One of the rights of the individual with a disability is to self-disclose. The individual may disclose their disability if they choose, however, they are under no obligation to do so. If
they do not self-disclose their disability, the authority (e.g., employer or instructor) is not obliged to make accommodations for the disability. In order to self-disclose, an individual with a disability needs to know how to discuss their disability, when to discuss their disability, and with whom to discuss their disability. They need to develop knowledge and competence related to self-awareness, self-advocacy, and goal setting.

The purpose of this study was to investigate the effects of the Possible Selves program (Hock, Schumaker, & Deshler, 2003) with a supplemental disability awareness lesson on perceptions related to self-awareness, self-advocacy, and goal setting among adolescents with disabilities, their teachers and their parents. Student performance within the program was also investigated. To address this purpose the following research questions were developed:

1. Do the perceptions of self-awareness among students with disabilities change as a result of instruction in the Possible Selves program with supplemental disability awareness lesson?

2. Do the perceptions of self-advocacy among students with disabilities change as a result of instruction in the Possible Selves program with supplemental disability awareness lesson?

3. Do the perceptions of goal setting abilities among students with disabilities change as a result of instruction in the Possible Selves program with supplemental disability awareness lesson?

4. Do student perceptions differ from teacher perceptions and parent perceptions related to student self-awareness?

5. Do student perceptions differ from teacher perceptions and parent perceptions related to student self-advocacy skills?
6. Do student perceptions differ from teacher perceptions and parent perceptions related to student goal setting ability?

7. How well do students perform on lesson assignments within the Possible Selves program with supplemental disability awareness lesson?

Significance of the Study

Students with disabilities need to learn self-awareness, self-advocacy, and goal setting skills. These are particularly important as they near their graduation from high school. Upon graduation, students with disabilities will no longer have the protection of legislation governing the education of students with disabilities, such as IDEA. They will come under the protection and responsibility of ADA, which is predominantly a piece of civil rights legislation that guarantees that individuals with disabilities may not be discriminated against solely on the basis of their disability in employment. The law requires that an individual self-disclose their disability to ensure that appropriate and reasonable accommodations needed to successfully perform the job can be developed (ADA, 1990). In order for an individual with a disability to adequately self-disclose, it is necessary to be self-aware, develop self-advocacy skills and set goals.

This study has the potential to assist high school students in developing self-awareness, self-advocacy, and goal setting skills. There is a need for research in this area particularly among secondary students. Much of the previous research has involved post-secondary individuals in educational or vocational settings (Carter & Wehby, 2003; Clark, 1996; Gerber et al., 1996; Hicks-Coolick & Kurtz, 1997; Raskind et al., 1999; Rogan et al., 1993). The conclusions from the research indicate that self-awareness and self-advocacy are indicators of success in adults. Moreover, some research suggests that
individuals are relieved when they learn about their disabilities (Yuan, 1994). There appears to be comfort in knowing and understanding characteristics related to their disability. Some even state that they would like to have had the opportunity to learn about their disability prior to graduating from high school. Goal setting has also been demonstrated to be a measure of success for adults with disabilities (Raskind et al., 1999). The research in the area of self-determination and goal setting indicates that students need to learn the skill of developing and working towards goals prior to graduation from high school (Wehmeyer et al., 2003; Wood et al., 2005).

Ultimately, this study has the potential to result in greater success for students with disabilities in postsecondary settings. By furthering knowledge of the self-perceptions of students with disabilities, teachers can be better prepared to specifically instruct students in and toward areas of success. Explicit instruction in self-awareness, self-advocacy, and goal setting has the potential to empower students to compartmentalize their disability and understand that it is only one aspect of who they are. The Possible Selves program allows individuals to explore their individual characteristics and is appropriate for educational settings.

This study contributes to the literature related to self-determination, particularly in the areas of self-awareness, self-advocacy, and goal setting programs for students with disabilities. Limited research is currently available related to this important topic.

Limitations of the Study

The following were limitations in this study:

1. Self-perceptions of students may have been influenced by their social learning and therefore, may have influenced the results.
2. Students attended a charter school in a large southwestern city and therefore, may not be representative of other student populations.

3. Students were in 9th through 12th grades and therefore, caution must be used when generalizing the results to younger students.

4. Students were from one metropolitan area and therefore, the ability to generalize the results to other geographic regions is limited.

5. Teachers' perceptions may have been influenced by factors other than student behavior in the program and therefore, may have influenced the results.

Definitions of Terms

Disability Awareness Lesson

The Disability Awareness Lesson is a researcher-developed lesson designed to instruct students with disabilities, included in the study, about their disability. The lesson is designed to instruct students in the meanings of terms and phrases used in their IEP. Students reviewed and explored present levels of functioning, goals and accommodations and modifications identified in their IEP.

Emotional Disturbance

Emotional Disturbance is defined as “...a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child’s educational performance: an inability to learn that cannot be explained by intellectual, sensory, or health factors; an inability to build or maintain satisfactory interpersonal relationships with peers or teachers; inappropriate types of behavior or feelings under normal circumstances; a general pervasive mood of unhappiness or depression; a tendency to develop physical symptoms or fears associated with personal or
school problems” (IDEA, p. 9). The term does include schizophrenia but does not include a student who manifests social maladjustment, unless it is determined that the student has an emotional disturbance (Individuals with Disabilities Education Act, 20 U.S.C. 1401 (3)(A) and (B) 1401 (26) § 300.7 (4)(i) and (ii)).

Goal Setting

Goal Setting is the act of thinking about and planning for future activities. It is a component of self-determination. Individuals who are self-determined develop goals and work towards attaining them (Wehmeyer, 1999).

High-Incidence Disabilities

High-Incidence Disabilities are disabilities that occur in the population with a relatively high frequency. These disabilities usually include learning disabilities, communication disorders, emotional disturbance, and mild mental retardation (Hallahan & Kauffman, 2006).

Possible Selves

As an integral part of self-knowledge, it is necessary for individuals to understand that there are three possible selves. There is the ideal self that one would like to become. There is the self one could become and there is the self that one fears becoming (Markus, & Nuruus, 1986).

Possible Selves Program

An instructional program designed to teach students to consider their possible self. Individuals are instructed in ways to be more aware of and empowered by who they currently are and who they might become. Individuals learn that the future can be determined by their effort (Hock, Schumaker, & Deshler, 2003).
Self-Advocacy

Self-advocacy can be conceptualized as a framework with four contingent parts. The four parts are: (a) knowledge of self, (b) knowledge of rights, (c) communication, and (d) leadership. The foundational principles are the knowledge of self and knowledge of rights; these need to be understood fully in order to communicate desires and needs to others and/or take a leadership role in speaking for oneself and/or others (Test et al., 2005).

Self-Awareness

Self-awareness is defined as having two parts: (a) acceptance of the learning disability and (b) general self-awareness. Acceptance of the learning disability includes an individual’s ability to refer to self and describe events in terms of the learning disability and to compartmentalize the disability or understand that the disability is only one part of self. General self-awareness includes the individual’s ability to articulate strengths and weaknesses and to describe behavior and activities apart from the learning disability (Raskind et al., 1999).

Self-Determination

The ability of an individual to behave as the causal agent in his/her own life. Self-determined behaviors have four characteristics: (a) acting autonomously, (b) self-regulated action, (c) initiation of and response to events as empowered, and (d) self-realized action. All four of the characteristics must be present in any behavior to some extent (Wehmeyer, 1999).

Self-Disclosure

The term refers to an obligation on the part of an employee with a disability. It is necessary for the individual to disclose to the employer the existence of a disability. This
disclosure is completely voluntary. However, if the disability is not disclosed to the employer, it is difficult to assure that necessary accommodations will be made. Likewise, on public college and university campuses, students must self-disclose the existence of a disability in order to access the supports in place to accommodate students in classes and extracurricular activities (Americans with Disabilities Act of 1990, 42 U.S.C.A. § 12101 et seq.).

**Specific Learning Disability**

Specific Learning Disability is defined as “…a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia” (IDEA, p. 13). The term “…does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, or emotional disturbance, or of environmental, cultural, or economic disadvantage” (Individuals with Disabilities Education Act, 20 U.S.C. 1401 (3)(A) and (B) 1401 (26) § 300.7 (10)(i) and (ii), p. 13).

**Summary**

One of the greatest challenges in public education is to properly address the individual and interpersonal needs of students with disabilities while simultaneously addressing the rigorous standards-based academic reforms imposed by federal legislation (Miller, 2002). It is established in law and Supreme Court decisions that a free and appropriate public education is a civil right of students with and without disabilities. But,
successful implementation of this right is becoming difficult to accomplish (Miller, 2002). Likewise, it is becoming increasingly difficult to assure that students will make successful transitions to adult life. Researchers have found that individuals with disabilities who develop an active self-awareness that includes knowledge of strengths and limitations and compartmentalization of one's disability are more likely to succeed as adults than those individuals who lack self-awareness (Raskind et al., 1999; Gerber et al., 1996). Therefore, it seems important to provide this type of instruction prior to graduating from high school. To be socially valid, the instructional program used to provide self-awareness instruction needs to be effective and efficient. It needs to be an intensive program that can be delivered in a relatively short amount of time to ensure that general instruction related to required academic curricula can continue. The Possible Selves program with an additional disability awareness component may represent this type of program. Through participation in this program, students will learn more about who they are as a complete individual and how this self-knowledge can inform their decision-making ability.

The remaining chapters include discussion related to the details of this study. Chapter 2 contains a literature review of pertinent research-based studies. Chapter 3 contains a report of the methodology used for this study. Chapters 4 and 5 contain a report of the results of this study and a discussion of implications for future research.
CHAPTER 2

REVIEW OF LITERATURE

The purpose of this chapter is to provide a discussion on the prominent literature in five topic areas. The five topic areas are self-determination, self-awareness, self-advocacy, goal setting abilities, and possible selves theory. Knowledge of these literature bases is needed to understand the importance of developing self-awareness, self-advocacy and goal setting skills for adolescents prior to their transition from high school to adult life. The search procedures and criteria used for selection in this literature review will be discussed first. Then, a summary and synthesis of each of the five topic areas will be presented. Finally, a summary and synthesis of the research on self-determination, self-awareness, self-advocacy, goal setting abilities and possible selves theory as related to this study is provided.

Search Procedures

A systematic search through three computerized databases was conducted. The databases were Academic Search Premier, Education Full-Text, and PsycINFO. The following descriptors were used: (a) self-determination, (b) self-awareness, (c) self-advocacy, (d) goal setting, (e) possible selves, (f) academic outcomes, (g) instruction, (h) interventions, (i) adolescents, (j) secondary students, and (k) disabilities. These descriptors were used individually and/or in groups to fully search through each of the
databases. Additionally, the references provided at the end of each of the articles were reviewed.

**Criteria for Selection**

Studies were included in this review if: (a) the procedures and data-based results were published between 1986 and 2006, (b) the participants were high school or college students with or without disabilities, (c) the study included at least two participants, (d) the purpose of the study was to examine the development and/or use of self-determination, self-awareness, self-advocacy, and/or goal setting skills, (e) the purpose of the study was to examine the development and/or use of possible selves, and (f) the purpose of the study was to examine academic outcomes in any of the aforementioned areas. Studies were excluded from this review if: (a) the participants were adults with or without disabilities, and (b) the setting was a hospital or other clinical environment.

Most of the studies included in this literature review were published between the years of 2000 and 2006. Also, most of the studies were conducted in public schools and, at least in part, in general education classrooms. In addition to availability, the rationale for this emphasis was to assure that the most current information was included in this review and that the setting was pertinent to public education in the 21st century. However, several articles that were included did not fit these criteria, i.e. the study was published prior to the year 2000 and/or the setting was other than a public school classroom. In these few instances, the study was included for the following reason: (a) the research conducted operationalized a definition pertinent to the research in this dissertation, (b) the research conducted was considered significant by other authors and was cited often, (c) the instruments used during assessment and/or training were significant for the research.
in this dissertation, and/or (d) the implications for future research indicated that future research should be conducted in a public school setting with students with learning disabilities.

Review and Analysis of Studies Related to Self-Determination

Self-determination is the term used to represent the body of skills that lead an individual to act as a causal agent in his or her life. As legislation has increasingly recognized the importance of students with disabilities participating meaningfully in the development of their Individualized Education Program (IEP), self-determination has developed as more than an ideal for behavior but also as something that needs to be taught. This section presents crucial research in the study of self-determination and the development of skills for students with disabilities.

Durlak, Rose and Bursuck (1994) conducted a study to examine the ability of students with disabilities to accurately state their disability and associated accommodations and to appropriately work with their teachers in general education classes. The purpose of this study was to investigate the ability of students to acquire specific self-determined behaviors through direct instruction and subsequently, generalize those behaviors in other school settings. The specific behaviors investigated were: (a) stating the nature of the disability, including strengths and weaknesses, (b) stating the impact of the disability on academic and social performance, (c) identifying accommodations helpful in supporting areas of need, and (d) identifying strategies for assuring that accommodations are used with their general education teachers.

Eight high school students with learning disabilities participated in the study. Specific learning disability was confirmed by the students' IEP. Special education teachers
familiar with the students' abilities and academic performance recommended participants. The study was conducted in a large suburban high school in the Midwest. Assessment and group instruction occurred in resource room classes. Generalization occurred in a variety of general education classes.

Seven self-determination skills were developed using Kazdin’s (1977) social validation procedure. The seven skills served as continuous measures with behavioral observations of individual participants’ mastery of the targeted skills. The seven identified skills were: (a) asking for clarification of lectures, (b) telling the teacher that one has a disability, (c) making an appointment to discuss accommodations/needs with the teacher, (d) asking to use a tape recorder for lectures, (e) asking for another student to take notes or to copy another student’s notes, (f) asking the librarian for assistance, and (g) making an appointment with a reference person outside of the classroom (e.g., special education teacher, guidance counselor) for assistance.

Two formal pre-post measures were used in the study, which were the Assertiveness Scale for Adolescents (ASA; Lee, Halberg, & Slemon, 1985) and the Piers-Harris Children's Self-Concept Scale (Piers, 1989). Additionally, two informal pre-post measures were used in the study. These were designed by the investigators and were completed by special education and general education teachers on each of the students. The first was a Self-Awareness Checklist and the second was a Self-Advocacy Checklist. Each checklist consisted of 10 to 16 statements describing student behaviors related to self-awareness and self-advocacy skills, respectively. Items referred specifically to skills being taught in the intervention.

Durlak et al. (1994) used the multiple-baseline-across-behaviors single subject design for this study. There were six phases to the study, which were: (a) pre-baseline procedure,
(b) teacher-aide training, (c) baseline, (d) training, (e) maintenance, and (f) generalization. Data were collected in each of the phases.

The pre-baseline procedures consisted of two 30 to 40 minute sessions with each of the student participants. The trainer and a special education teacher conducted the sessions. In order for a student to move on to the training phase, he/she needed to verbally state the nature of his/her disability and the type(s) of assistance required to achieve.

A paraprofessional was identified as the observer/recorder and as the assistant trainer for the pre-baseline phase. This individual was trained in the specific recording procedures and the intervention. This training was completed in two sessions.

During baseline, data were collected using checklists based on task analyses of the seven self-determination skills. Data were recorded for three consecutive sessions on all seven tasks. Students received no corrective feedback. Training for a specific task began when performance on the previous task reached at least 90% accuracy.

Training was conducted in two groups of four students each. It was completed in 30-minute sessions that met twice weekly. Training was conducted using direct instruction during which the trainer defined, demonstrated and rehearsed the task, and answered questions from students. Students then participated in role-playing the steps for each task. Each session was videotaped and played back for students.

Maintenance was conducted one week after completion of instruction in the seven skills. Students were asked to write or orally state the steps of the task. The same data sheets as during training were used for scoring responses in the maintenance phase.

Generalization occurred when each of the students had completed training in all steps of the seven self-determination skills. Students were asked to use each of the skills in
alternate settings in their high school. Students were given a shorter checklist with space for the faculty or staff member to initial, date and specify class or area.

All eight students learned the self-determination skills. Maintenance results indicated all eight students retained knowledge at 100% accuracy one week after completion of instruction. Students were allowed one to two weeks to complete five tasks during the generalization phase. The average completion rate was 4.38 out of 5.00 possible.

Simple t tests were used on each of the pre-post formal and informal measures used. There was no statistical significance between pre-post measures.

Durlak et al. (1994) reported that the significance of this study was demonstrating that high school students with learning disabilities could learn to acquire, maintain and generalize self-determination skills. Further, economy of instructional time was demonstrated as the students acquired the skills in two to five sessions. Another finding of the researchers in this study was that students need specific instruction and practice in self-awareness and self-advocacy skills prior to graduating from high school in order to become comfortable and proficient in using these skills. Researchers indicated that further research in this area is needed to justify instructional time.

A strength of this study is that self-awareness and self-advocacy were identified as specific self-determination skills, which could and should be specifically taught to high school students. A weakness of this study is that there was no statistical significance found in any of the formal or informal pre and post measures.

Agran, Blanchard, Wehmeyer, and Hughes (2002) conducted research on the ability of students with mental retardation and developmental disabilities to use self-determinations skills in general education classes. Specifically, the ability of student
participants to use self-regulated problem-solving skills in the general education classroom was measured.

Participants were four middle school students with disabilities. Each of the four students was included in general education classes. While all students were enrolled at the same neighborhood school, they were enrolled in different general education classes. The investigation took place in a Science class, a Life Skills class for all students, and an English class. The Science and English classes were co-taught by a general education and special education teacher. The Life Skills class had only one teacher. Multiple grouping techniques were used in each of the classes. No peer groupings and limited large group instruction were used in the classes.

Agran et al. (2002) used a multiple-baseline-across-participants single subject design to conduct this study. Their purpose was to study the effect of instruction in self-determination over time. The specific conditions were baseline, training and post-training. Each of the students worked with their special education and general education teacher to identify a target behavior related to their IEP goals. One student identified appropriate touching as his target behavior. One student identified following directions as her target behavior. Two students identified participating in class discussion more frequently as their target behaviors. To provide students with opportunities to practice and achieve their goals, teachers provided three to five opportunities during each class session for the students to exhibit their target behaviors. Students’ behavior was observed and recorded during each of these opportunities. Data were only recorded during these specified opportunities. Teachers and paraprofessionals were provided a list of specific tasks and activities to use during each observation period.
Observer/recorders were three general educators and a paraprofessional. Training was provided in two sessions for the observers. The first session consisted of instruction in the self-determined learning model. The self-determined learning model of instruction consisted of teaching teachers to instruct students in a self-regulated problem-solving process. In this process, students learned to set their own goals and use one or more student-directed learning strategies to monitor and evaluate their own progress toward their goals. The second training session consisted of teaching the observers to recognize each of the students' target behaviors and proper recording procedures.

Students completed the Goal Attainment Scale (GAS; Kiresuk & Lund, 1976) prior to training. Teachers completed the GAS during baseline. The GAS measures goal attainment and program effectiveness. Students and teachers developed goals and a range of measures or behaviors that indicate goal attainment.

Baseline data were collected until mean performance on the target behaviors was stable. During training, students were instructed to follow a sequence of problem-solving steps. First, students asked themselves, "What is the problem?" Second, students were instructed to ask themselves, "What can I do about it?" In the third step, students were taught to implement their solution to the problem and then ask, "Did that fix the problem?" Students were taught to answer each question out loud during training so that researchers could provide feedback. Once the trainer was satisfied that the student knew the steps and could follow them independently, students were taught to use cue cards they had developed during training and go through the steps silently when in the general education classroom.

Researchers set mastery level for performance of the problem-solving steps at 80%. Once the student achieved this level for eight consecutive training days, the teacher or
paraprofessional assigned to observe continued collecting data and discontinued providing any praise or feedback. This was considered the post-training or maintenance phase of the study.

The results during the baseline condition for the four students were low with a mean ranging from 0% to 9% for the four students. During the training condition, performance for all students increased markedly with a mean range of 88% to 100%. The average number of days to achieve mastery for the students was 2.3. Three of the four students achieved mastery and moved to the maintenance condition prior to the end of the school year. Each of the three students maintained a mean of 100%. Using the GAS pre-test results, all students achieved higher than teachers predicted.

Participating students responded to three questions as part of social validation of this study. The four questions were: (a) what have I learned, (b) what barriers have been removed, and (c) what has changed about what I didn’t know? Student responses were all positive indicating that they had achieved their goals, had more friends, had more fun in their general education classes and were proud of themselves for completing the work. Teachers were not given a formal social validation survey but provided anecdotal reports. All teachers reported that they noticed an improvement of student behavior on their goals.

Researchers reported that this study demonstrated that students with intellectual disabilities can be taught a self-regulated problem-solving strategy and use it appropriately in inclusive educational settings. Researchers further reported that this strategy is useful for social and academic skills. Students were taught specific steps to follow and in fact, learned to simultaneously use several strategies to accomplish a task.

A strength of this study is that students with disabilities were included in general education classes and used the strategy learned successfully. Students also were able to
indicate their level of learning through the social validation survey. General education and special education teachers collaborated for the successful instruction of all students.

In 2003, Grigal, Neubert, Moon, and Graham surveyed parents and teachers of students with high- and low-incidence disabilities to learn their view on self-determination. The purpose of this study was to investigate four variables of parent and teacher perceptions of self-determination. The parent variables were: (a) incidence of disability (i.e., high vs. low) of their child, (b) child's instructional program, (c) time their child spent in general education classes, and (d) relationship to their child (i.e., parent vs. caregiver). The teacher variables were: (a) incidence of disability (i.e., high vs. low) with whom they worked, (b) instructional program in which they taught, (c) number of years of experience as a teacher, and (d) certification as a special education or general education teacher.

Names and addresses of 984 parents/caregivers and 698 teachers were randomly selected from two school districts in a mid-Atlantic state. Participants were 234 parents/caregivers and 248 special and general education teachers who returned the completed survey and the signed informed consent. All parents/caregivers had a child with a high incidence or low incidence disability between the ages of 16 and 21 years. Most of the parent/caregiver participants were mothers (83.5%). All special and general education teachers provided some instruction to students with either a high incidence or a low incidence disability between the ages of 16 and 21 years. Most of the teacher participants were female (71%) and slightly more than half were general educators who taught in a college preparatory curriculum.

Two survey instruments, one for parents/caregivers and one for teachers, were developed by the researchers in this study (Grigal et al., 2003) based on a review of the
literature. Both instruments included questions to elicit demographic information and nine items for parents/caregivers and ten items for teachers designed to elicit responses regarding belief(s) about self-determination. Each item contained a six-point Likert scale with responses ranging from strongly agree to strongly disagree.

For both surveys, researchers used an unconstrained factor analysis to develop a factor matrix with squared multiple correlations. After examination of a scree plot, a subsequent factor analysis using a varimax rotation was used. Factor structure loadings for each item that defined a factor had to exceed .40 (Joreskog & Skorbom, 1983).

Three factors emerged as important for parent/caregivers. The first factor was student participation in their IEP meeting, with an alpha coefficient of .79. The second factor was student expression of choice and interest, with an alpha coefficient of .64. The final factor was teaching self-determination skills, with an alpha coefficient of .73. The results mean that parents/caregivers believe students should be taught to participate in their IEP meetings, should have an opportunity to express themselves in the IEP meeting, and should be taught self-determination skills.

A four way analysis of variance was run to examine the relationship of parents' mean scores with incidence of disability, instructional program, time spent in general education class and relationship to child. These factors were more likely to be rated as important when the student was enrolled in a college preparatory or career/technology curriculum than when enrolled in a community-based/life skills curriculum.

Two factors emerged as important for teachers. The first factor was student opportunity to learn and practice self-determination skills with an alpha coefficient of .85. The second factor was teacher familiarity with self-determination with an alpha coefficient of .73.
A four way analysis of variance was run to examine the relationship of teachers’ mean scores with incidence of disability, instructional program in which they taught, years of teaching experience and whether they were a special education or general education teacher. In general, special educators who worked with students with low incidence disabilities for more than 10 years were more likely to believe that they knew what self-determination was and how to teach the skills. Further, general educators with 10 years of teaching experience or more and special educators with less than 10 years of teaching experience were more likely to believe that a student with disabilities had the opportunity to learn and practice self-determination skills.

Grigal et al. (2003) concluded that a significant finding of this study was that parents believed that students should participate in their IEP meetings. According to the researchers, this is a finding unique to this study. The researchers further stated that additional research would need to be conducted to determine the exact definition of student participation, i.e. attendance vs. having an active voice. The researchers also pointed out that self-determination was not specifically mandated in legislation governing special education and participation in IEP meetings. The researchers indicated that parents could do more to support participation of their child in IEP meetings and also encourage use of self-determination skills at home. Teachers could do more to assure that students were taught self-determination skills and provided opportunities to use them.

A strength of this study is that parents’ views on self-determination were targeted. A weakness of this study is that students’ views were not included. There may be some significant differences.

Martin et al. (2003) developed a study to examine whether secondary students with severe emotional/behavioral problems could learn to use a self-determination contract to
regulate planning, working, evaluating and adjusting academic goals. The researchers sought to learn whether the students would improve their percentage of academic tasks completed through the use of the self-determination contract.

Eight boys, aged nine to ten years old, were included in the study. All of the students resided in a private, residential/educational treatment program for children with severe emotional/behavioral problems. All of the participants participated in daily special education classes.

Researchers used an interrupted time-series action research design (Johnson & Christensen, 2000). The intervention included three phases. First, the teacher introduced with minimal instruction the self-determination contract to the students. Second, students were awarded bonus points for completing all components of their contract. Students recorded the bonus points in the teacher’s grade book with the teacher’s supervision. In the third and final phase, students were taught in detail how to complete the adjustment section of the contract.

The researchers in this study developed the self-determination contract. It consisted of a single sheet with four sections: (a) plan, (b) work, c) evaluate, and (d) adjust. The two sections on the front of the contract (i.e., plan and work) were characterized by two columns of clock faces, one clock for each academic subject during the regular day. Students put the hour and minute hands on the clock faces and/or wrote in the length of time to complete the work for each of the academic subjects. Students completed the plan section at the beginning of independent work time and completed the work section upon completion of the tasks required for each subject. Students obtained teacher approval for their contract. The teacher assured that the amount of work, type of work, and amount of time to complete tasks was reasonable for the individual student’s abilities.
Teacher instruction and student practice in using the self-determination contract was the pre-intervention phase. This phase lasted for five instructional sessions. In the subsequent four sessions after the initial introduction of the contract, the teacher answered questions and provided encouragement to the students for using the contract.

The bonus point phase began with the sixth instructional session and continued through the 24th session. At the beginning of the session the teacher announced that students would receive bonus points for completing all sections of the contract. Students completed their contract, interacted with the teacher regarding its completion, and recorded bonus points in the grade book. At the end of the 24th session, the teacher announced that there would be no more bonus points awarded as students had sufficiently learned to use the self-determination contract.

The third phase of the study began with the 25th instructional session. During this phase, the teacher instructed the students in detail how to use the adjust section of the contract. The teacher taught students the connection between the evaluate and adjust sections. For example, if the student responded “Yes” to a question regarding a specific academic subject, then the goal had been met and no adjustment was needed. If, however, the student responded “No”, then the student needed to indicate what they needed to change or adjust for the next time. The adjustment might mean changing the time allotted or number of problems.

The teacher collected each student’s self-determination contract daily. These permanent records provided the source of data for the study. A detailed rubric for scoring the contracts was developed. Two individuals scored each of the contracts from the pre-intervention and intervention phases. These scores were analyzed using a one-way ANOVA. The dependent measures analyzed were: (a) plan and work, (b) work and self-
evaluation, (c) self-evaluation and adjustment statements, and (d) adjustment statements and student's plan for the next day. Statistically significant effects were observed for each of the dependent measures.

Researchers concluded that the student participants did learn to use the self-determination contract and that it had a positive effect on their self-regulation of academic behavior. Researchers further indicated that teachers could learn to teach and reinforce use of the contracts with students during instruction. Students experienced additional control over their learning. Researchers also indicated that this study should be replicated using students with learning disabilities and in alternate settings, such as public schools.

A weakness of this study is that the generalizability of the results may be questioned as students resided at a small care facility. A strength of this study is that students learned relatively quickly how to use the self-determination contract and continued use of it through the study.

In 2006, Carter, Lane, Pierson and Glaeser conducted research to examine the abilities and opportunities of students with emotional disturbance (ED) and learning disabilities (LD) to exhibit self-determined behavior. Specifically, Carter et al. sought to answer four questions: (a) what opportunities are present to use self-determined behaviors, (b) how do students with ED and LD respond to the opportunities, (c) what are the perceptions of students, teachers, and parents regarding the opportunities to exhibit self-determined behaviors, and (d) what relation exists between students' abilities and opportunities to exhibit self-determined behaviors in school and at home?

Eighty-five high school students identified with ED and/or LD were included in the study. All students attended either one of two public high schools in a suburban school...
district or one of two alternative high schools for students with LD and/or ED located in the same geographical area. Special education teachers of the students included in the study as well as either the mother or father of the student participants were also included.

The AIR Self-Determination Scale (Wolman, Campeau, DuBois, Mithaug, & Stolarski, 1994) was administered to the students by research staff at a convenient time during the school day. Special education teachers completed the scale during the school day at their convenience. Parents were mailed the scale and all other forms and returned all paperwork in self-addressed stamped envelopes to research staff.

Two-way mixed ANOVAs were conducted to analyze the data. The effect of disability group (i.e., ED or LD) and participant group (i.e., student, parent or teacher) on four factors within the AIR Self-Determination Scale (Wolman et al. 1994) was evaluated. The four factors were: (a) ability, (b) perceptions, (c) opportunities at school, and (d) opportunities at home. The between-subjects factor was disability group and the within-subjects factor was respondent. Significant effects were followed up with tests of simple effects to determine significance of disability label and respondent. Teachers were the only participants to complete the Knowledge scale and these data were analyzed using a t test to compare scores of students with ED and LD.

The results of the study were fairly consistent. Educators rated the ability of students with ED to use self-determined behaviors significantly lower than student ratings. There was no significant difference in this area for students with LD. Parents and educators rated the self-determination abilities of students with ED significantly lower than students with LD. Educators rated the perceptions of self-determination of students with ED to be significantly lower than those of students with LD. There was no significant difference
between the student groups. Educators also rated the knowledge of students with ED regarding self-determination to be lower than that of students with LD.

Parents and educators rated students with ED and those with LD as having significantly more opportunities to use self-determination skills at school than did students in both disability groups. Students and parents rated students with ED as having significantly fewer opportunities to engage in self-determined behaviors at school than students with LD. Parents rated opportunities to exhibit self-determination skills of students with ED and those with LD as significantly higher than students and educators. Overall, students with ED were rated by all three groups (i.e., students, parents, and teachers) as having fewer opportunities at home to engage in self-determination skills. Finally, researchers found significant positive correlations between capacity for self-determination skills and opportunities to use these skills for parents, educators and students.

Researchers in this study concluded that additional studies should be conducted to assure that influences such as respondent bias not interfere with results. They also stated that ratings should be correlated to direct observation of student behavior. Researchers suggested that specific attention be given to providing direct instruction for students with disabilities, especially those students with ED, in goal setting, self-evaluation, choice making, and problem solving. They suggest that embedding this instruction along with frequent opportunities to exhibit abilities should be provided. Finally, researchers suggested that communication between educators and parents needs to be improved to make more accurate conclusions regarding capacity and opportunity to engage in self-determined behaviors.
There are several strengths to this study. One is that perceptions of students, parents and educators were rated. A second strength is that researchers rated capacity and opportunity at home and at school. Researchers underscored the importance of instructing students with disabilities in self-evaluation. However, no mention was made of self-awareness or self-advocacy as important skills to teach.

Review and Analysis of Studies Related to Self-Awareness

Self-awareness is recognized as one of the components of self-determination skills. It involves a knowledge of self that is based on all characteristics, i.e., those thought of as strengths and those thought of as weaknesses. Self-awareness for a student with a disability includes knowledge of the disability in an honest and truthful sense. As an individual grows, learns, and changes, it is anticipated that self-awareness would be affected as well, growing, learning and changing as students experience different life events. This section presents crucial research in the study of self-awareness of individuals with disabilities and their development of skills.

In 1999, Raskind, Goldberg, Higgins, and Herman, conducted an in-depth survey of individuals with disabilities who had been students at the Frostig Center in Pasadena, CA twenty years earlier. The purpose of this survey was to develop key indicators of success for individuals with learning disabilities. The hypothesis of the researchers was that if success indicators could be identified and defined, teachers in public schools could better design instructional interventions for young people prior to graduation from high school. The researchers wanted to learn: (a) what factors promote or prevent success, (b) whether these factors change over time, (c) how factors interact to produce specific outcomes, (d) how learning disabilities are experienced over time, and (e) whether academic skill
deficits change over time. All of these questions were answered in the context of individuals with learning disabilities.

Participants in the study were individuals who had been identified with a learning disability and who had attended the Frostig Center from 1958 to 1965. All of the participants in the 20-year follow up survey had been included in a previous study conducted 10 years after leaving Frostig. Letters of introduction were sent to those individuals for whom an address was known. Additionally, telephone directories, voter registration records, personal and professional networking, and private investigators for individuals who had moved out of state were all used to locate previous participants in the 10 year follow up study. Forty-one participants were located and consented to be included in the study. Using chi square tests, there was no significant difference of the participants on ethnicity, gender, or socio-economic status.

In-depth personal interviews were conducted with each of the participants. The interview questions were divided into five sections (i.e., employment/educational history, residential/household arrangements, family relationships, community/social relations, and personal beliefs/values/behaviors/feelings). Interviews were conducted by one of the four researchers included in this study. Interviews were audio taped and verbatim transcripts of each interview were placed in a database.

Six attributes of success were identified in the previous 10-year study and these attributes were used for this study. The attributes of success were: (a) self-awareness, (b) proactivity, (c) perseverance, (d) emotional stability, (e) appropriate goal setting, and (f) presence and use of appropriate support services. Unsuccessful participants were viewed as possessing a "lack of" any of the six attributes. The interviews in this study were reviewed to obtain data on behaviors related to the six defined attributes. Researchers
developed specific behaviors and expressed attitudes that comprised each of the six attributes in an effort to operationalize the concepts. Score sheets were developed and the presence of each attribute was scored for each individual as 1 (present) and 0 (absent) and the scores were totaled. Based on these scores and two additional domains (i.e., physical health and psychological health), participants were placed in either a successful group or an unsuccessful group. Researchers agreed that all domains would receive equal weight and that success or unsuccess would be compared to the larger society, specifically nondisabled adults of the same age. In addition to these scores, "...each of the eight domains for each participant was additionally rated by each researcher on a scale of 1 to 5 for each participant" (Raskind et al., 1999, p. 38). These ratings were totaled and averaged for each participant.

Researchers used descriptive statistics to summarize changes on independent and dependent variables. Further, statistical significance was calculated by using a repeated-measures analysis of variance and a multivariate analysis of variance. Researchers found that most participants remained in either the successful or unsuccessful groups over time. In other words, there was little movement between groups (i.e., three individuals moved from successful to unsuccessful and three individuals moved from unsuccessful to successful). Background variables, such as gender, ethnicity, age, and family socioeconomic status did not present a statistically significant difference between the successful and unsuccessful groups. Successful and unsuccessful groups were distinguished from each other based on the six attributes of success used in this study.

Quantitative and qualitative data confirmed that the presence of a learning disability presented the strongest stress during childhood and adolescence in the academic context.
Over time, participants entered full-time employment, became increasingly independent financially and in living arrangements, moved from being single to being married and maintained positive relationships with their parents and siblings. Participants indicated few community involvements stating that time spent on daily living activities left little time for other activities. The lack of movement between groups (i.e., successful to unsuccessful and vice versa) seemed to indicate that success was stable over time. Self-awareness, proactivity, perseverance, emotional stability, appropriate goal setting, and use of support systems were more effective predictors of success than IQ, age, academic achievement, life stressors, gender, socioeconomic status, ethnicity, and other background variables.

Researchers suggested that educational practices should be re-evaluated based on the results of this study. An important implication of this study was that the six attributes of success should be given at least equal instructional time to more traditional academic activities. A further implication was that given the persistence of learning disabilities into adulthood, services should not be stopped upon graduation from high school.

A weakness of this study is that it was based on quantifying the testimony of individuals with learning disabilities. It is possible that the participants were biased in their responses and therefore, the results were biased as well. A strength of this study is that so many different individuals looked at the same data and concluded similarly. Researchers quantified the data whenever possible. This research relates specifically to this dissertation study in the finding that self-awareness defined as being able to state the disability and strengths and weaknesses associated with it, is an attribute of a successful individual with a disability.
Reiff (2004) studied the self-awareness of college students in the context of reframing their definition of what constitutes a learning disability. The study was designed to extend a previous theory and related hypothesis associated with “reframing” one’s disability.

In 1996, Gerber, Reiff and Ginsberg used current literature to hypothesize that students with learning disabilities could be taught to “reframe” their disability. These researchers theorized that the process of “reframing” causes a paradigm shift in thought allowing the individual to view and organize challenges in a different perspective. This shift in thought then becomes a catalyst for problem solving and subsequent action. The researchers presented their case that this shift needed to be explicitly taught for students with disabilities in order for those students to clearly and accurately identify their strengths and use them to succeed. Simultaneously, students needed to be aware of their weaknesses in order to appropriately self-advocate. As a result of this analysis of literature, the researchers developed four components of “reframing” a learning disability. They were: (a) recognition, (b) acceptance, (c) understanding, and (d) a plan of action.

In 2004, Reiff sought to examine the ability of college students to develop productive and positive affirmations that would translate to graduation. The process of “reframing” their disability involved moving from an external locus of control to an internal one and changing negative attributions to positive ones. The researcher sought to raise the self-awareness and understanding of college students about their disability.

Twenty-one college students who were enrolled as full-time students in a small, private liberal arts college participated. From the spring semester in 1997 through the spring semester of 2001, the student participants enrolled in a semester long independent study course to explore their learning disability. Participants and results are from the nine
semesters during which the course was offered. As part of the course, students completed three projects. Students reviewed their psychological evaluations and responded to specific questions in a writing project based on what they learned as the first two projects. The third project was open-ended and determined by the student and course instructor (also the researcher). Some students developed work that detailed their vision for dealing with a learning disability throughout adult life. Others volunteered to be panelists in an introductory graduate course on special education.

The researcher used an ethnographic qualitative design. The papers written by the student participants were analyzed for the development of self-awareness and self-understanding. Detailed guidelines and questions were developed for each of the projects and were subsequently used to analyze the data.

Reiff (2004) reviewed the student papers in terms of the four components of the reframing process. The first component was recognition. The initial project of reading and evaluating their most recent psychological evaluation provided much information for these students. As college students with learning disabilities, the participants had heard terms often but had never developed a cogent definition for many. Students reported that their was a strong impact on their self-understanding upon reviewing the psychological evaluations and learning about specific characteristics reported in these evaluations.

The second component was acceptance. To demonstrate acceptance of their disability, students reported that they accepted that work might be more difficult, that support would need to be sought by them and that they might have to change their major. Each of these is critical to demonstrating an acceptance that their learning disability is one aspect of their characteristics. Students reported that the project of reviewing their psychological report was a critical incident in their development.
Understanding was the third component. Students wrote that during the independent study course they developed a deeper understanding of their strengths and weaknesses. For many students, this study was the first time they had read their evaluations and this process formed the basis of a critical incident in their development.

The final component was developing a plan of action. Students reported that taking the independent study course was the catalyst for their developing methods for maximizing their strengths to help compensate for their weaknesses.

The researcher posited that the simple act of recounting their experiences and reactions to them through writing was transformative for many of the students. To accomplish this task, the students had to focus and reflect upon the process. From this permanent written product, a rich and fertile opportunity for reframing was provided. From this experience, the researcher concluded that students with learning disabilities need opportunities to review, reflect and reformulate their self-awareness and self-assumption.

Review and Analysis of Studies Related to Self-Advocacy

Self-advocacy is also increasingly recognized as a component of self-determination. Individuals who act as causal agents in their life must learn how to get their needs met and how to interact with others to this end. Students learn to act upon the self-learning by speaking directly with teachers and other authority figures. This is an essential skill to learn and develop as students transition from high school to postsecondary education and/or employment settings. This section presents crucial research in the study of self-advocacy and the development of these skills for students with disabilities.
Stone and May (2002) conducted research to examine the self-concepts of students with learning disabilities. Researchers examined student self-concepts in comparison to their parents and teachers perceptions of their skills and possible overestimations of their abilities.

Student participants were high school students with and without learning disabilities. Fifty-two of the students were identified with a learning disability and 49 of the students did not have a learning disability. Additionally, the mother or father of 91 of the students, 33 English teachers or advisors, and 24 special education teachers participated. The English teachers, advisors and special education teachers worked with multiple students included in the study. All students were enrolled in one of two middle class suburban high schools.

All of the testing and surveying for all students was completed in a quiet room during an elective course period by one of the researchers. Tests were administered in groups of no more than five students. Students with and without learning disabilities were included in each of the groups. Students were encouraged to finish as many of the items on the questionnaires as possible. For any items not completed during the first session, students were asked to return the next day. The prediction tasks were timed and therefore, completed in one session. Protocols, questionnaires, and predictions tasks were mailed to participating parents on the first day of testing of their student. Similar packets were distributed to pertinent school personnel on the initial day of testing for each student.

All students completed two questionnaires and two prediction tasks. The first questionnaire was developed by the researchers and titled the *Skills Rating Survey*. This survey consists of 24 statements with a nine-point rating scale. The statements relate to specific skill sets and learning domains. The second questionnaire was a self-concept
scale that consisted of 150 questions covering six subscales (25 questions per subscale). Scores are obtained on each of the subscales and are therefore, domain specific and a total general score is obtained for overall self-concept.

Subsequently, students were given two prediction tasks constructed by the researchers in this study. The first was a vocabulary task consisting of 30 items. For each item, students were asked to choose the best synonym for a target word. The second prediction task was a mathematical computation task. This consisted of 20 computation problems ranging from multi-digit operations to simple algebraic operations. For each of the prediction tasks, students were asked to begin by estimating how many of the questions/problems they would be able to accurately complete. As they completed each task they were asked to rate each completed item with an “R” or “W” for whether they thought their answer was right or wrong, respectively.

Parents and teachers were given parallel surveys and prediction tasks. On the survey, parents and teachers were asked to rate the student on each item. On the prediction tasks, parents and teachers were asked to predict how many of the items students would correctly answer in the time provided.

Students with learning disabilities rated themselves significantly lower than their peers without learning disabilities on the second self-concept scale. A similar result was found for the skill survey; students with learning disabilities rated themselves significantly lower than their non-disabled peers.

A group by informant ANOVA was completed to compare student scores with parent scores on the skill survey. Researchers found no significant difference between students and parents for students with learning disabilities. Results for the non-disabled peers were lower than their parents but the difference was not statistically significant. There was no
comparison of student and teacher and advisor scores as the data collected were incom complete. Teachers and advisors reported they did not feel comfortable rating students in more than a few skill areas. An overall tendency of students with learning disabilities to overestimate their abilities and a concomitant tendency for students without learning disabilities to underestimate their abilities was revealed.

Student predictions on the vocabulary and math tasks were analyzed. Student predictions were compared to their actual performance on both tasks using an ANOVA in which the group (LD, NLD) was the between-participants factor and performance source (prediction, actual) was the within-participants factor. On the vocabulary task, students with learning disabilities predicted and performed lower than their non-disabled peers. Both groups of students estimated that they would perform much better than the actual results. On the math task, students with learning disabilities predicted and performed lower than their non-disabled peers as well. The overpredictions of students with learning disabilities were significantly greater than their non-disabled peers.

When results were compared between the student groups and their parents and teachers, results varied. Students without disabilities predicted they would complete fewer tasks compared to parent and teacher predictions on both the vocabulary and math tasks. Students with learning disabilities predicted they would complete more vocabulary items than their parents and teachers and fewer math items. Students with disabilities were significantly lower at rating each of the items with “R” and “W”. This means they were inaccurate at making these item-by-item judgments.

According to Stone and May (2002), these results confirmed other studies. Students with learning disabilities report a significantly lower academic self-concept than their non-disabled peers. Students with learning disabilities also tended to overestimate their
actual abilities on the vocabulary and math tasks. The researchers point out that this tendency towards overestimation may serve to protect self-esteem. However, the concomitant effect is that it impedes self-advocacy because it does not indicate an honest self-awareness. Without the basic honesty regarding ability and performance, students with learning disabilities will not be able to participate in general education classes as expected.

In 2004, Test and Neale conducted research with the purpose of extending research on a published self-advocacy program. The program studied was *The Self-Advocacy Strategy* (Van Reusen, Bos, Schumaker, & Deshler, 1994). Specifically, researchers studied the effect of learning the strategy on verbal contributions and level of self-determination.

Four eighth grade students, one girl and three boys, were included in the study. None of the students had attended an IEP meeting prior to this study. The program and study were fully described to students and their parents and consent to participate was obtained. Instruction was conducted in a resource classroom with each student for two weeks.

To measure the dependent variable of student contribution, each student was asked 10 questions relating to his/her IEP. Each question was scored using a four-point scale. Teachers audio-taped student responses to the questions. Interobserver agreement was obtained by having a graduate assistant listen to the tapes, score responses and calculate percentage of agreement (number of agreements divided by number of agreements plus disagreements multiplied by 100).

Pre- and post-test scores on the *ARC's Self-Determination Scale: Adult Version* (Wehmeyer & Kelchner, 1995) were used to measure self-determination skills of the students. This scale consists of 72 items that measure autonomy, self-regulation,
psychological empowerment, and self-realization. The scale was administered to each student individually and orally prior to intervention and again at the end of the study. Social validity was measured by administration of the Student Intervention Rating Profile (SIRP; Snyder & Shapiro, 1997). This profile was administered at the conclusion of the intervention in a modified version. It consists of six questions that are scored using a six-point scale.

Researchers used a single-subject design, multiple-baseline across participants. Baseline consisted of completion of the self-determination scale as a pre-test. Then, students completed the self-advocacy questionnaire. Based on these scores, the student with the lowest score was the first to begin the intervention phase of the study.

The intervention phase consisted of teaching students The Self-Advocacy Strategy (Van Reusen et al., 1994). Students were taught individually in 10 sessions lasting 20 to 45 minutes each. Instruction continued until each of the four students completed sessions learning the strategy. During this phase, the questionnaire was used as a probe at the beginning of every fourth session.

Upon completion of instruction for each of the four students, the generalization phase began. During this phase, an IEP meeting was convened with all team members. Students were asked the 10-question probe and the meeting was videotaped.

The second author of this study served as the second investigator. This individual conducted procedural validity in 20% of the sessions. Procedural validity was conducted using a checklist developed for each stage of the study and scored with “yes” or “no”.

Results of scores on the 10-question probe were analyzed using descriptive statistics. Researchers found that each of the four participants made gains from the beginning of the study to the end. Similar results were found on the ARC’s Self-Determination Scale as
well. Each of the four students responded positively on the six-question social validity questionnaire administered at the conclusion of the study. Based on these results, researchers concluded that while students in middle school can learn to appropriately participate in their IEP meetings, there were no conclusions for the more general self-determination skills. Further research needs to be conducted to broaden the application of strategies.

Test, Fowler, Brewer and Wood (2005) conducted a study regarding a review of self-advocacy interventions across disabilities and age. The purpose of the study was to present a content and methodological review of this body of literature in an attempt to provide other researchers and teachers with the most current information regarding the need to specifically identify and teach self-advocacy skills to students with disabilities.

Researchers reviewed the literature using Educational Resources Information Center (ERIC) and Ovid Database’s PsycINFO electronic database. The review covered 1972 through June of 2004. The beginning date, 1972, was chosen because it has been associated with the first recorded use of the term self-determination in reference to students with disabilities (Wolfensbeiger, 1972). Researchers used the following terms in all possible combinations and sequences: (a) self-advocacy, (b) assertiveness, (c) self-awareness, (d) empowerment, (e) disabilities, (f) intervention, and (g) teaching. Further, researchers reviewed the reference sections of the included articles for relevant works.

Researchers used specific criteria for including and reviewing articles. The criteria were: (a) peer-reviewed journal, (b) studies of interventions, (c) participants were students with disabilities, and (d) dependent variables and questions pertained to self-advocacy or a component of self-advocacy. Using these criteria, 25 articles were identified for inclusion in this study.
The 25 articles identified as meeting the initial criteria were then reviewed two more times, once for content and once for methodology. The content information gathered were: (a) components of self-advocacy that were taught, measured, and/or discussed, (b) inclusion of a definition of self-advocacy, (c) use of the term self-advocacy in the article, (d) study’s purpose, (e) design(s) used, (f) demographic information and selection process of participants, (g) dependent variable(s), (h) measurement of dependent variable(s), (i) independent variable(s), (j) results, and (k) discussion including limitations and implications.

Quality indicators were developed for each of the study designs (i.e., single-subject design, quantitative, and qualitative) using the most current sources. The quality indicators for single-subject design studies were: (a) participants, (b) dependent variables, (c) independent variables, (d) baseline, and (e) validity. The quality indicators for quantitative studies were: (a) research conceptualization, (b) participants, (c) intervention, (d) outcome measures, and (e) data analysis. The quality indicators for qualitative studies were: (a) credibility measures, (b) interview, (c) observation, (d) document analysis, and (e) data analysis. Each of these main topics for each of the sets of quality indicators contained subtopics that were individually rated. Using these indicators, a methodological review of each of the 25 articles was completed.

The content and methodological reviews were conducted by a minimum of two researchers using checklists developed for this purpose. Interobserver agreement was calculated as a percentage of agreement on the total number of items on the review sheets. Interobserver agreement ranged from 89.5% to 97.3% for content and 94.4% to 100% for methodology.
For the findings regarding content, researchers reported that 24 of the 25 articles contained a clearly stated specific purpose. There were a total of 626 participants in the studies. The settings were in public school settings including general education classrooms, self-contained settings, and school libraries. Adults study settings included classrooms at adult centers for individuals with disabilities, college campuses, and outpatient medical clinics. Seven studies included simultaneous multiple sites (i.e., multiple schools, school systems, and adult centers).

Three of the studies used a qualitative design, eleven used a single-subject design and the final eleven studies used an experimental design. The qualitative studies presented questions to analyze the effectiveness of implementing self-advocacy curricula. Of the remaining 22 studies, the dependent variables measured were: (a) effects of programs to instruct students in participation in their IEPs and/or transition planning, (b) effects of interventions teaching specific self-advocacy skills, and (c) knowledge of self-determination that included self-awareness and self-advocacy. Nine of the studies used a researcher-developed strategy to teach a specific skill and 16 of the studies measured multiple skills related to self-determination and self-advocacy. The additional self-determination skills included in studies were: (a) goal setting, (b) problem-solving, (c) self-awareness, (d) communication skills, and (e) rights and leadership.

Of the 25 studies, 23 reported positive results. The two remaining studies were qualitative studies and while there was no statistical significance found, there was anecdotal evidence that indicated positive results.

For the methodological findings of single-subject designs, researchers found that 10 of the 11 studies in this category adequately described the participants and settings. All 11 of the studies included sufficient detail for replication, defined dependent variables,
used repeated measures and calculated interobserver agreement. Ten of the eleven studies defined the independent variable sufficiently for replication. Ten of the eleven studies were found to sufficiently define baseline procedures. Finally, ten of the eleven studies collected and reported external, internal and social validity data with sufficient precision for replication.

Methodological findings for the quantitative design studies were reported as follows. Five of the eleven studies in this category replicated other research studies and six used innovative concepts and included a strong argument for using the new approach. Eight of the eleven studies reported specific research questions. Ten of the eleven studies included detailed descriptions of the participants. Seven of the eleven groups used a control group. However, six of the seven provided sufficient detail of the control and experimental groups to establish equivalency. Seven of the studies defined the intervention with detail and three defined the difference between the intervention and control instruction. All eleven of the studies used multiple measures. Seven of the studies provided information linking data results to the original research questions.

The researchers presented methodological findings for the three qualitative design studies. All of the studies used triangulation and two involved prolonged time in the research setting. All three of the studies used interviews and two included observations and/or analysis of documents. All of the qualitative studies used meaningful criteria to sort and code results and included a rationale for including the information in the manuscript.

Test et al. (2005) found that whether researcher-developed or published curricula were used, the 25 studies included in this review demonstrated that students with disabilities can learn self-advocacy skills. These positive results were gathered through
direct observations, scores on standardized measures, and/or reports from students, parents and teachers.

Researchers discussed their findings regarding the content of the studies included. They found that there is a continuing need to include students younger than 12 years of age and those who have severe cognitive disabilities. Researchers also found a need to study the impact on and relationship between cultural diversity and self-advocacy. Finally, researchers reported that studies are needed to study the impact of learning self-advocacy skills on future quality of life and student grades.

Regarding methodological review of the studies included, inclusion and exclusion criteria needed to be more clearly defined. Observer bias was not sufficiently controlled in several of the studies as observers were familiar with both conditions and participants. In qualitative studies, researchers found that there was insufficient disclosure of researcher values, opinions, beliefs and assumptions prior to beginning study and reporting of the study.

Researchers suggest that as a result of their review of the literature, teachers need to use the IEP process as an opportunity for teaching self-advocacy skills. Researchers also need to become familiar with published programs and move beyond simply knowing some strategies. Finally, researchers suggest that teachers examine their own cultural beliefs and instructional materials for bias.

Review and Analysis of Studies Related to Goal Setting

Goal setting skills are integral to developing a plan beyond high school and transitioning to adulthood for young people. Students with disabilities need to be included in this learning as well. Goal setting requires that students be active participants
in the decisions that affect them. Students must use problem solving and self-evaluation skills in the process of setting and working towards goals. Goal setting is an integral part of making decisions and therefore, self-determination. This section presents crucial research in the study of goal setting and the development of these skills for individuals with disabilities.

In 2003, Wehmeyer et al. conducted research to examine the ability of individuals with disabilities to develop and achieve goals related to work. The researchers adapted the *Self-Determined Learning Model of Instruction* for use in developing, planning, executing, and evaluating work goals. The researchers developed the *Self-Determined Career Development Model* and examined its use and effect on individuals with disabilities.

Six adults who were currently receiving vocational rehabilitation services from a vocational rehabilitation counselor participated in the study. Individuals had been receiving services for anywhere from one to nine years prior to beginning the study. The range of age was 22 to 50 years. Prior to inclusion in this study, all participants had been rated as making minimal or no progress in obtaining employment by their vocational rehabilitation counselor.

All evaluations and interviews were conducted in an interview room of the rehabilitation services office. Each participant met individually with a member of the project staff twice weekly for 45 minutes. While the evaluation of the study lasted for six weeks, the project staff person met twice weekly for four weeks prior to beginning collection of baseline data. These pre-sessions were designed to work with the participants to develop a career goal. Upon development of a clear and defined career
goal, the project staff member began collecting baseline data. Concurrent with collection of baseline data, the project staff member developed an action plan with the participant.

This study was conducted in three phases. The first phase included the development of clear career goals. Participants answered questions including the job they would like to have, what information they currently know about that job, what changes they might need to make to obtain that job, and what they can do to accomplish this career goal. The second phase involved development of an action plan. Participants were guided through answering questions including the actions they could take to achieve their career goal(s), potential barriers to achieving their goal(s), potential methods for removing those identified barriers, and development of a schedule with a clear beginning date. The third phase involved reflection and evaluation. Questions to be answered in this phase included actions that have been taken, removal of barriers, changes that the individual has made to accomplish his/her goal, and whether the goal had been achieved. This phase was achieved by two of the six participants.

Researchers developed guide sheets for each of the phases of the study. Each guide sheet was composed of four questions. The sessions between the participant and project staff member were comprised of working through each of the four questions. Participants conducted a role-play with the project staff member to demonstrate understanding of the problem and solution in each phase. The role-play was designed to provide practice in the specific goal developed (e.g., improved telephone skills, improved interaction with supervisors). Upon completion of the fourth question and subsequent role-play, the participant moved to the next phase of the study. During each of the sessions, a second observer entered the room 15 minutes prior to the end of the session. During this time, interobserver data were collected.
Researchers used a multiple-baseline across three pairs of participants single-subject design. Nonparametric statistics and visual inspection of graphs was used to analyze the data. One of the participants dropped out of the study prior to completion of the study and therefore, no data were included for that individual. Four of the remaining five participants made considerable progress on developing career goals and action plans to support these goals. The mean increase from baseline to intervention for all participants was 25%.

Wehmeyer et al. (2003) determined that the Self-Determination Career Development Model presents a viable model for supporting individuals with disabilities in identifying and achieving their career goals. They further posited that future research needs to be conducted to replicate the results they found. Researchers in this study believe that more participants need to be included in future studies to generalize the results.

Review and Analysis of Studies Related to the Concept of Possible Selves

The work most often cited in studies related to possible selves is by Markus and Nurius (1986). The authors provide a definition of possible selves and a framework in which adolescents can develop their most ideal possible selves. According to Markus and Nurius (1986), possible selves relates to how individuals think about their potential and their future. Possible selves theory represents the ideal selves that individuals would like to become and those possible selves that the individual fears becoming. Individuals can develop their ideals in the framework of an expected possible self, a hoped for possible self, and a feared possible self. The following studies examine the theory of possible selves development.
Cross and Markus (1994) hypothesized that college students naturally fall into two categories, i.e., schematic (possess an ability in a specific area and believe that the ability is of critical personal importance) or aschematic (lack either an area-specific ability or the belief in its critical importance). They developed two investigations to study: (a) the relationship between self-schemas and possible selves in a discreet domain and (b) performance in that domain.

In the first study, 96 college students (48 female and 48 male), from an original pool of approximately 1500 introductory psychology students at the University of Michigan were selected based on their responses to two questionnaires. Students were asked to respond to domain specific statements twice. First, students responded to statements of ability using an 11-point scale with response possibilities ranging from “not very good” to “extremely good”. Second, students responded to importance of ability using an 11-point scale with response possibilities ranging from “not very important” to “extremely important”. Next, students who had never taken a calculus course or were not currently enrolled in one were eliminated. Finally, students were asked to respond to statements regarding how often they solved puzzles or spent spare time playing analytical or problem solving games. A third 11-point scale with response possibilities ranging from “not very often” to “extremely often” was used.

A month and a half after the pre-screening questionnaires were administered, participants volunteered for a 90-minute appointment. Students were randomly assigned to groups of two to six individuals and were assigned to a cubicle to complete the study measures. First, students signed an informed consent form and then, completed the Life Orientation Test (Schier & Carver, 1985). Second, students completed a Logical Reasoning Test, which consisted of 25 items taken from the analytical section of the
Graduate Record Examinations (GRE; Graduate Record Examinations Board, 1987). Finally, students responded to a series of possible self-descriptors. All participants responded to each section using a computer.

Researchers used a comparison group design, comparing students identified as schematic to students identified as aschematic. There was no statistically significant difference between groups on the global self-confidence and optimism measure on the Schier and Carver (1985) Life Orientation Test. Similarly, there was no finding of statistical significance between groups on the Logical Reasoning Test. Finally, while schematic individuals identified more often with the “possible for me” statements when measuring the possible self descriptors, the difference did not rise to the level of statistical significance.

In the second study, Cross and Markus (1994) sought to answer the question of whether negative possible self would influence performance on a subsequent problem solving task. Pre-screening questionnaires similar to those used in Study 1 were used. Participants were 100 introductory psychology college students at the University of Michigan.

Participants volunteered for a 60-minute session during which the measures were administered. Students were identified as schematic or aschematic depending upon their responses to the questionnaires, as in Study 1 and then, randomly assigned to receive feedback or to receive no feedback; ultimately, students were in one of four groups: (a) schematic with feedback, (b) schematic with no feedback, (c) aschematic with feedback, and (d) aschematic with no feedback. Students responded to the Logical Reasoning Test, identical to the one used in Study 1; for the purposes of this subsequent study, the measure was now labeled LRT-1. Students were allowed 10 minutes to complete the test.
Students responded to questions regarding their attitudes towards the LRT-1 and their performance. They were told that their responses were being graded. Upon completion of "grading" the LRT-1, the researcher told students that either they had scored in the 47\textsuperscript{th} percentile of college students or they were given no feedback. Both groups then completed the second Logical Reasoning Test (LRT-2), adapted from the GRE (1987). The questions were different from those on the LRT-1 and students were given 10 minutes to respond. As an additional measure, students were asked to report their scores in calculus and their current GPAs.

A comparison \textit{t} test was performed on the calculus grades and GPAs and revealed no statistical difference between the schematic and aschematic groups. As in Study 1, no statistical difference was revealed between schematic and aschematic groups regarding responses on the LRT-1. No statistical significance was found between groups on the LRT-2. Researchers concluded that the aschematic students who received feedback that they had failed the LRT-1 used this information as a motivator for their future performance. Schematic students needed no such motivator. Researchers further concluded that students need to develop self-schemas that integrate and organize past experiences in order to maintain a high performance level on a specific task. The self-schema may be of particular importance when students receive little or no feedback.

A limitation of this study is that different students were used in Study 1 and Study 2, which may present difficulty in generalizing comparative results for the two studies. The students included did not identify and were not asked to identify a disability, which presents a second limitation.

Anderman, Anderman, and Greisinger (1999) conducted two studies with young adolescents. The purpose of the first study was to determine the relationship of current
and future possible selves and academic achievement. The purpose of the second study was to determine the relationship of current and future possible selves and performance mastery of academic skills.

Study 1 included 315 middle school students in the seventh grade from a midwestern state. Trained graduate students administered a survey to the participants in their classroom setting. Students responded to statements regarding present and future possible selves using a 5-point Likert scale. Students were also asked to complete a second questionnaire with questions regarding parent education. On the scoring rubric, a 6-point scale was used with scores ranging from “didn’t finish high school” to “attended graduate school” and a response for “don’t know”.

For the present and future possible selves factors, a principal components analysis with varimax rotation was used to analyze the data. For these data, the results skewed lightly negatively. Multiple regression analyses were used to analyze the relation of present and future possible selves and grade point average (GPA) for academic achievement. GPA was found to relate positively to a positive academic self and being female. GPA was found to relate negatively to a positive social self and being a member of a minority group. In general, the researchers found that academic achievement was related to current and future possible selves. GPA may improve during middle school for students who perceive themselves as good students in the present and in the future.

Study 2 included 220 students in sixth, seventh, and eighth grades in a southeastern school district in the United States. Undergraduate and graduate students administered surveys in November and May of the same school year. The surveys contained 10 descriptors and students were asked to rate themselves on each statement using a 5-point scale. The responses ranged from “not at all like me” to “very much like me”. Student
participants also responded to items regarding mastery and performance-approach goal orientation on the Patterns of Adaptive Learning Survey (PALS; Midgley et al., 1998) using a 5-point scale. The responses ranged from “not at all true of me” and “very true of me”. Students were again asked to respond to statements regarding parent education.

A confirmatory factor analysis was used to analyze the factor structure. Factors that emerged were one representing a good-student present self-concept, one representing a bad-student present self-concept and one representing a social present self-concept. Path analyses were developed to examine mastery and performance-approach goal orientation. Ethnicity emerged as a statistically significant factor in relation to present possible selves. African American students were more likely to identify performance-approach goal orientation at the end of the year than their non-African American peers. The presence of a good-student present self-concept related positively to both mastery and performance-approach goal orientation. Achievement was found to be related to both present and future possible selves. Mastery and performance goals were related to present good-student selves. Finally, future possible selves was related to performance goals only.

The authors reported that instruction of middle school students may benefit from understanding that students see themselves as good students based on grades and the perception of how well they perform relative to their peers. Middle school students also may begin to relate effort and performance and achievement to each other by understanding that their effort has an effect on their performance and achievement.

A strength of this study is that the researchers examined the potential relationship between possible selves and academic achievement. A limitation of this study is that students with disabilities were not included or not included as a discreet group.
Lips (2004) reported the research derived from a study of college students. The purpose of the study was to explore potential gender differences in academic possible selves of college students. The researcher hypothesized that there was a gender difference in current and possible academic self-views and that the difference followed gendered stereotypes. Participants were 738 college students attending a medium-sized comprehensive public university in the southeastern United States. The Lips Academic Self-View Survey (LASS; Lips, 1996) was administered in many different types of college courses covering such content as dance, computer science and criminal justice.

The LASS consists of 30 items related to current academic self and 15 items related to possible academic self. Each survey item consisted of a statement and five possible responses ranging from “not me” to “definitely me” for the current academic self items and “not a possible me” to “definitely a possible me” for the possible academic self items.

Professors in each of the classes gave permission for the LASS to be administered during class time. Students were told that participation was voluntary and they were not required to complete the survey. The survey required approximately 20 minutes to complete.

To analyze the survey data, responses were combined into composite scores by averaging the scores for academically associative items or those that “go together”. There were composite scores for current academic self items and possible academic self items. In addition, higher order composite scores were developed for current and possible academic self items. For the current academic self items, the Math/Science Composite and the Art/Literary/Communication Composite were developed. For the possible academic self items, the Power Composite and the People Composite were developed.
Two current and possible academic self domains were developed to further conceptualize and analyze the data. The domains were the mathematics/science/business domain and the art/culture/communication domain. A mixed $2 \times 2 \times 4$ (gender x domain x individual composite) multivariate analysis of variance (MANOVA) was used to analyze the gender and domain for the current academic self composite scores. Researchers found a strong interaction between gender and domain. A second MANOVA using the composite scores as dependent variables resulted in a significant multivariate for gender and subsequent univariate analyses revealed significant difference along gender lines in all but two of the composites. Similar analysis of data was conducted using the possible academic self composite scores and domains and revealed significant difference between male and female respondents. Women tended to score themselves higher on the arts, writing and working with people composites and men tended to score themselves higher on the math, science and arguing items. A $2 \times 2 \times 2$ (gender x domain x current vs. possible academic self) mixed MANOVA was conducted using the higher order composite scores and revealed a strong three-way interaction. Women scored higher in the arts and communication domains with men scoring higher in the math and science domains. Male and female responses were segregated along gender lines more in the possible academic self areas. The researcher concluded that a strong gender difference emerges between men and women and their self-views. This difference is particularly apparent in possible academic self views. This study did not reveal when this difference begins to emerge, as the respondents in this study were predominantly college juniors and seniors.

To address this and to examine how early these gender differences may begin to emerge, Lips (2004) conducted a second study reported in the same article with Study 1.
In Study 2, the LASS was administered to a subsequent group of 713 university students attending a medium-sized comprehensive public university in southeastern United States and a group of 447 high school students from four different high schools. Parent permission was sought and obtained for the high school participants. In the university and high school settings, instructors gave permission for the LASS to be administered during class time and required approximately 20 minutes to complete. Students were told that participation was voluntary and they were not required to complete the survey.

Data were analyzed using the mixed $2 \times 2 \times 4$ MANOVA for the composite scores for the current and possible academic self items. The results were similar for the university sample and for the high school sample to those in Study 1. Similarly, in analyzing the data for the higher order composite scores, results revealed similar outcomes to Study 1 and between the university group and the high school group. A mixed $4 \times 4$ (educational stage x composite) MANOVA was conducted to analyze the difference between grade in school and the domains identified. These data revealed a difference between high school and university female respondents. High school female students’ scores tended to be higher in the Power Composite than their university female counterparts, especially in the areas of math, science and business. The researcher noted this difference as university students may be in a stronger position to actually pursue those careers than in high school, yet their possible academic self views tend to prevent it.

The researcher concluded from both Study 1 and Study 2 that high school students continue to distinguish themselves along gender lines particularly in regards to the content areas of mathematics and science. The message that there are gender specific domains and/or that one gender is stronger in certain areas than the other continues to be internalized by male and female students from high school through college. The
concomitant result of this is that female students tend to view themselves more strongly in arts, literary and communication areas currently and into the future. This tendency may continue to shape the career pursuits of young women.

Aikins, Bierman, and Parker (2005) studied the transition of adolescents from elementary to junior high school. The purpose of their study was to examine the potential differences between pre-transition social skills, friendship quality and self-system expectations on post-transition friendship maintenance, friendship quality, emotional distress and mother/youth perceptions of adjustment to school. A path diagram was developed to delineate the hypothesized pre- and post-test connections.

Participants were 123 elementary school students (target participants) and 121 of their best friends. There were 76 girls and 47 boys for whom the proper permission was obtained and subsequently participated in the study. The best friends were named by the target participants as either their first best friend (90% participated) or second best friend (83%) participated. The average age of the students was 12 years 4 months.

The students were enrolled in seven elementary schools in two school districts located in central Pennsylvania. The students transitioned from these elementary schools to two large junior high schools in the same rural areas. Transition from elementary to junior high schools occurred at the end sixth grade in these school districts.

The study was divided into two parts (i.e., the pre-transition procedures and the post-transition procedures). For the pre-transition portion of the study, in the spring of sixth grade, target participants and their mothers were contacted by mail. The enclosures of the mailing included a letter explaining the study and a pre-paid postcard to be sent back to the researchers. The parents and children were contacted to set up a time for an interview either at the child’s school or home after school hours. During the interview, students
completed the Friendship Quality Questionnaire (Parker & Asher, 1993) and the Adolescent Interpersonal Competence Questionnaire Revised (Buhrmester, 1990). They also answered structured interview questions related to expected possible selves. The work of Markus and Nurius (1986) was used to construct these questions. Students were also asked to identify a best friend and were told the best friend would be contacted. Children were paid $10.00 for their participation.

Identified best friends and their mothers were contacted by phone and completed a short interview. Consent forms for the parent and child, a letter explaining the study and response prompts for the questionnaires were mailed. Best friends were paid $5.00 for their participation.

For the post-transition portion of the study, in the spring of seventh grade, target participants and their mothers were contacted to conduct follow-up interviews at the child’s house after school. During the follow-up interview, target participants completed the Peer Social Network Diagram (Parker & Herrera, 1996), the Friendship Quality Questionnaire (Parker & Asher, 1993), the Self-perception Profile for Adolescents (Harter, 1988), the Loneliness and Social Dissatisfaction Questionnaire (Asher & Wheeler, 1985), and the child’s version of the School Adjustment Questionnaire (Conduct Problems Prevention Research Group, 1999). They were also asked to name their best friend once again and were told that their best friend would be contacted. The mothers were asked to complete the mother version of the School Adjustment Questionnaire (Conduct Problems Prevention Research Group, 1999). The target participants and their best friends were compensated for their participation once again.

Researchers used the structural equation model (SEM) to interpret pre- and post-test data and the relations. The SEM is similar in measurement and statistical validity to the
multivariate analysis of variance (MANOVA) and multiple regression. Aikins et al. (2005) found that strong pre-transition friendships were maintained over the transition to junior high school and were indicative of more positive adjustment to school. There was also a strong correlation between development of social skills and maintenance of friendships. Girls in the study demonstrated stronger social skills and hence, stronger friendships than the boys in the study. There was limited correlation between students' expected possible selves and friendship quality and maintenance and school adjustment.

In general, the researchers of this study (Aikins et al., 2005) found that adolescents making the transition to junior high school adapt more quickly to their new situation when they have strong friendships prior to the transition. Further, social skills were found to be an important factor in developing and maintaining friendships over time. A limitation of this study is that no students with disabilities were included as a measurable group.

Oyserman, Bybee, and Terry (2006) posited that a positive academic possible self could have a positive effect on social identity and racial-ethnic identity. They hypothesized that participation in the intervention they developed would improve students' beliefs about attaining more positive academic selves and that this improvement would improve positive social and racial-ethnic identity.

Participants were 264 middle school students from Detroit. The students were African American, Latino, and White and all families were low income as measured by participation in school lunch programs and family income below the poverty line using Census Bureau data.

Students for whom informed consent was obtained participated in 11 sessions designed to instruct students in current possible selves schema and developing future
possible selves. The sessions included identifying photographs as positive role models and subsequently those who would be negative role models. Photographs included youths and adults. Students were led through developing academic possible selves, developing action goals, developing strategies for fulfilling their action goals, and evaluation of their progress. These sessions were taught as elective courses during the school day. The course was called School-To-Jobs. Participants were randomly assigned to this elective course (treatment group) or a typical elective course. Two trainers taught the course who had received 39.5 hours in training. Fidelity to protocol was maintained through observation and weekly staff meetings.

Data collection took place over a two-year period, beginning prior to eighth grade and continuing through the end of ninth grade. Baseline data were collected prior to the intervention. Post-intervention teacher and student surveys were administered three times during the two-year period. Test scores, GPA and attendance records were collected from school records. For any students suspended or expelled, researchers conducted in-home interviews. Student tracking was conducted to assure that students who began the study were able to continue in the ninth grade.

A variety of measures were used during the data collection. To obtain demographic data, the school provided most and students were asked to identify their racial/ethnic background. Possible Selves data were collected using an open-ended question format. Students responded to questions about various possible selves and these results were scored and rated by two researchers to obtain inter-rater reliability. Academic possible selves were rated for balance (i.e. an academic possible self paired with a feared possible self) and for plausibility (i.e. a possible self-paired with strategies to realize the possible self).
To measure social identity, a four-item, five-point Likert within group identity scale was developed. Students identified with which racial/ethnic group they identified and then, responded to statements associated with that minority group. The four response items ranged from strongly agree to strongly disagree. Students who identified as White were excluded as the researchers believed that ‘white identity’ likely has a different meaning than minority groups.

To measure self-regulatory behavior, youth were asked questions on homework completion, disruptive behavior, initiative-taking behavior and absences. The questions were asked originally at the beginning of eighth grade and then, two more times in the fall and spring of ninth grade. Academic outcomes were measured by calculating a GPA using mathematics, science, history and English grades.

Using the Center for Epidemiological Studies Depression Scale (Radloff, 1977), students’ self-report of depression was measured. Students responded to twenty items using a four-point scale. Possible responses ranged from ‘not at all or one day per week’ to ‘5 to 7 days in the week’.

To analyze the data, the researchers (Oyserman et al., 2006) used multilevel modeling (MLM; Raudenbush & Bryk, 2002; Snijders & Bosker, 1999). Significant intervention effects were found for developing academic possible selves. This means students were able to develop plausible academic possible selves and develop strategies to implement their action goals. Absences were reduced overtime with youth reports and school records being concurrent. There was a significant difference between the youth in the treatment and control groups for developing self-regulatory behavior. This means that students who received instruction in the intervention spent more time completing homework, were more likely to take initiative during class and less likely to skip class than their peers who
did not receive instruction in the intervention. Significant difference in GPA was
demonstrated two quarters after the intervention was completed, i.e. third quarter of ninth
grade. GPA continued to diverge between groups through the end of the school year.
Students in the treatment group scored lower by two points than their control group peers
on the depression scale, which is a statistically significant difference (Radloff, 1977).

Having found significant direct effects, the researchers conducted structured equation
modeling (SEM) to determine whether or not the construction of plausible possible selves
mediated the outcomes. The purpose of SEM is to assure that the model developed prior
to intervention is valid and to test for indirect effects of the intervention. Researchers
determined that the data supported the model and therefore, demonstrated a good fit for
all of the factors. The researchers found that the balance and plausibility of academic
possible selves were good mediators of homework completion and behavioral problems.
Further, researchers found that balance and plausibility of academic possible selves were
partial mediators of GPA and depression in ninth grade.

Hierarchical multiple regression was used to examine the interaction of the academic
possible selves and social identity. There was a significant effect for those students in the
treatment group and no significant effect for those students in the control group. This
means that academic possible selves and social identity were positively associated for the
students who received the intervention but the same was not true for the students who did
not receive the intervention.

Researchers determined from the results that students living in low income
households and neighborhoods tend to be from minority groups, which is why the
researchers targeted students from these groups. The purpose of the intervention was to
mitigate the potential academic failure and perpetuation of negative outcomes. The
results led the researchers to postulate that it is possible to mediate the negative effects of stereotypes by teaching students to develop salient possible selves and strategies to support that development.

A strength of this study is that researchers were able to follow the students from middle school into the first year of high school. The data were collected at several points during the two-year time frame to measure saliency and maintenance of learning. A weakness of this study is that students with disabilities were not included as a discreet group. As members of a marginalized group, it is possible that students with disabilities may benefit from this type of intervention.

Pizzolato (2006) used possible selves theory to study the relationship of positive possible self development and aspiration achievement among college students representing minority groups. She hypothesized that developing a positive possible self might be difficult for members of minority groups that have been historically marginalized. She further hypothesized that these individuals might not develop schema to support achieving goals of attending and graduating from college.

Participants were 28 university students attending a large public midwestern university. They were recruited from support programs at the university designed to identify students who might be at risk for failure or dropping out of college prior to successfully completing a degree program. Sixteen of the 28 students were female. The ethnic breakdown of the sample was as follows: (a) 16 – African American; (b) 1 – Asian; (c) 8 – Hispanic or Latino/a; and (d) 3 – identified more than one group. Twenty-seven of the students were in their freshman year of college.

Each student participated in a 60 minute individual interview with the researcher. A series of main questions were developed in a pilot interview process with two high risk
students known to the researcher but not eligible for inclusion in the actual study. The interview was structured so that each participant was asked the main questions and follow up questions to pursue the development and choices of each individual. The questions focused on experiences and decisions the individual participants viewed as important in their pre-collegiate and early collegiate experiences. A demographic questionnaire was given to each student upon completion of the interview and the student completed it in a separate room.

All interviews were audio-taped and the interviews were transcribed verbatim. Using a constant comparative analysis and grounded theory, the researcher was able to develop patterns, themes and ultimately codes specific to the responses. The codes were used to code the interviews. The interviews were coded a total of three times each – by the researcher and individually by two of her colleagues – to strengthen the reliability and to account for possible scorer bias. Any disagreement among or between the coders was noted and the coding system was revised. Subsequent coding was conducted and trustworthiness of the system was found to be intact. There was no substantial difference among the coders.

Preliminary findings revealed that for the students included in the study, their current possible self emerged as a way to mediate a feared possible self-schema. The researcher referred to a ‘college possible self’ that first developed in most respondents as a result of aspirations of achieving a life different from that seen and rehearsed in their immediate family and community experiences. In other words, these students developed hoped-for possible selves that were different from their peers, parents and/or community patterns. The researcher found that students naturally grouped based on either high levels of parental encouragement or low levels of parental encouragement. In the group with high
levels of parental encouragement, students tended to develop hoped for and feared possible selves. Through the encouragement of their parents, these students were able to link their effort and behavior toward their hoped for possible self as a means of successfully avoiding their feared possible self. In the group with low levels of parental encouragement, the college possible self developed later and typically as a result of seeing and/or experiencing a feared possible self that the student did not desire to replicate. A difference emerged between the two groups in that those students with high levels of parental encouragement viewed their college possible self as an expected possible self. On the other hand, those students with low levels of parental encouragement tended not to view their college possible self as an expected possible self even after it was a clearly stated hoped for possible self.

To realize their college possible selves, students needed to develop a schema. Two distinct types of schema developed (i.e. a procedural schema and a conceptual schema). The procedural schema was necessary to assure that students understood the procedures for application and admittance to colleges and/or universities. The conceptual schema was necessary to assure that their efforts along the procedural schema path were not thwarted by themselves or others. Typically, these students were plagued with self-doubt and a desire to maintain relationships even as their life-choices differed from their friends and family. The development of a conceptual schema allowed students to re-evaluate their decision to attend college and develop methods for maintaining important relationships while applying for and attending college. In some cases, this process assured that different role models were developed.

The limitations of this study are its generalizability due to the small sample size. Also, constant comparative analysis and grounded theory are essential components of
qualitative research. However, there is little opportunity to operationalize definitions so that the study can be replicated. A strength of this study is that by interviewing students one on one, some understanding of the development of hoped for, expected and feared possible selves for marginalized groups, may have emerged. While students with disabilities were not included in this study, as a traditionally marginalized group there may be some generalizability of the findings to this group of individuals.

Summary of Literature Review

There is evidence in the literature that students with disabilities can be taught self-determination skills and can generalize the use of these skills to general education classroom settings (Agran et al., 2002; Carter et al., 2006; Durlak et al., 1994; Grigal et al., 2003; Martin et al., 2003). In addition to assessing student performance related to self-determination skills, two groups of researchers measured the perceptions of parents and teachers regarding students' use of self-determination skills (Agran et al., 2002; and Durlak et al., 1994). In these studies, perceptions of teachers and parents indicated that students' abilities were low. Researchers used these data to support their hypotheses that students need to be taught self-determination skills. They also concluded that students need to learn to act as self-determined individuals in circumstances that extend beyond participation in their IEP meetings.

Researchers have conducted studies to more explicitly define the specific skills included in self-determination. Specifically, research has been conducted on defining and developing the self-awareness skills, self-advocacy skills, and goal setting skills of individuals with disabilities (Raskind et al., 1999; Reiff, 2004; Stone & May, 2002; Test et al., 2005; Test & Neale, 2004; and Wehmeyer et al., 2003). These researchers found
that learning these skills was important for the future success of individuals with disabilities. Through specific instruction and encouragement of the development and use of these skills college students and adults with learning disabilities were able to achieve and maintain success. Researchers postulated that it may, therefore, be important to explicitly teach these skills to students with disabilities prior to graduation from high school.

One theory for encouraging young people to think about their future is the possible selves theory. This theoretical framework includes three ways for an individual to consider their future (i.e., a hoped for possible self, a feared possible self, and an expected possible self). Researchers have used the possible selves theory to instruct students in developing more positive self-identities, including gender and ethnicity (Cross & Markus, 1994; Lips, 2004; Oyserman et al., 2006). Researchers have also demonstrated that possible selves theory may be helpful in improving academic achievement for students (Anderman et al., 1999; Pizzolato, 2006). Aikins et al. (2005) concluded that developing positive possible selves helps students successfully transition from elementary school to middle school. It is hoped that developing a positive identity, improving academic achievement and making positive transitions will also help high school students with disabilities.

The current dissertation study extends the literature included in this review in the following ways. First, the current study focuses on the specific self-determination skills of self-awareness, self-advocacy, and goal setting. These skills have been identified as foundational to assuring that individuals with disabilities are able to meaningfully participate in decisions about their future in employment and/or postsecondary education. Second, the current study seeks to obtain and analyze quantitative data in a naturalistic
setting with a control group and a treatment group of students with disabilities. Third, student, parent and teacher perceptions related to student abilities were collected in order to compare and analyze similarities and differences. Finally, a possible selves program is used as the instructional intervention for the treatment group.
CHAPTER 3

METHODOLOGY

There is evidence that students with disabilities experience negative outcomes upon leaving high school (National Council on Disability, 2004; US Census Bureau, 2004). This is true whether students continue their education or choose to seek employment. Researchers have demonstrated that individuals who experience more success as measured by education, employment, and interpersonal relationships possess the ability to compartmentalize their disability as being only one of many personal characteristics (Gerber et al., 1996; Raskind et al., 1999). Successful individuals with disabilities understand specifically what their disability is and how it impacts learning and ability to complete tasks. They can articulate to authority figures (e.g., college and university instructors and employment supervisors) the accommodations they may need to be successful. There is evidence that individuals with disabilities who are enrolled in postsecondary education and/or who are gainfully employed can be taught to understand their disability and articulate their need for accommodations (Yuan, 1994; Gerber et al., 1996; Reiff, 2004). It seems that teaching these skills to high school students rather than waiting until they enter postsecondary settings has the potential to increase their levels of success. The purpose of this study was to investigate the effects of the Possible Selves program (Hock et al., 2003) on perceptions related to self-awareness, self-advocacy, and goal setting among adolescents with disabilities, their teachers, and their parents. Student
The purpose of this chapter is to describe the specific methodology and procedures used in this study. The chapter is organized into eight major categories including the: (a) research questions, (b) participants, (c) setting, (d) materials (e) instrumentation, (f) design and procedures, (g) fidelity of treatment, and (h) data analysis.

**Research Questions**

The specific research questions asked in this study were:

1. Do the perceptions of self-awareness among students with disabilities change as a result of instruction in the *Possible Selves* program with supplemental disability lesson?

2. Do the perceptions of self-advocacy among students with disabilities change as a result of instruction in the *Possible Selves* program with supplemental disability lesson?

3. Do the perceptions of goal setting abilities among students with disabilities change as a result of instruction in the *Possible Selves* program with supplemental disability lesson?

4. Do student perceptions differ from teacher perceptions and parent perceptions related to student self-awareness?

5. Do student perceptions differ from teacher perceptions and parent perceptions related to student self-advocacy skills?

6. Do student perceptions differ from teacher perceptions and parent perceptions related to student goal setting ability?
7. How well do students perform on lesson assignments within the *Possible Selves* program with supplemental disability lesson?

**Participants**

**Student Participants**

Twenty-seven students with learning disabilities participated in this study. Students were eligible to participate in the study if they were enrolled in any of the classes taught by either of the two Learning Strategies Specialists who volunteered to participate in this study. Demographic data including gender, ethnicity, grade, age, IQ score and reading comprehension score were obtained for each student participant. The IQ and verbal intelligence scores were verified using the student’s confidential folder. The most recent scores were used and all were within the last three years. See Table 1 for specific student participant demographic data and Appendix A for the demographic questionnaire.

**Teaching Participants**

Two Learning Strategies Specialists from the faculty of the charter school were included in this study to provide the instructional intervention. The Learning Strategies Specialists were licensed teachers and had received specialized training in the University of Kansas Learning Strategy Curriculum. Demographic data including gender, ethnicity, certifications and years of teaching experience were obtained for the two Learning Strategies Specialists. See Table 2 for specific demographic data for the Learning Strategies Specialists who participated.

**Parent Participants**

One parent of each of the student participants also participated in this study. Demographic data including gender and ethnicity were obtained from each participating
### Table 1

**Student Demographic Data**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Treatment Group</th>
<th>Control Group</th>
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<tbody>
<tr>
<td><strong>Gender:</strong></td>
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**Student Demographic Data**

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*Note.* IQ was measured using the Wechsler Intelligence Scale for Children-Third Edition (WISC-III; Wechsler, 1991). Verbal Intelligence was measured using the Reynolds Intellectual Assessment Scales (RIAS; Reynolds & Kamphaus, 2003).

Parent. See Table 3 for parent demographic data. Ethnicities were self-identified and in some cases differed from students.

**Setting**

The study was conducted at a charter school located in a large metropolitan city in the southwest region of the United States. The charter school began instruction of elementary and middle school students at the beginning of the 1999-2000 school year. Students in kindergarten through grade 8 were eligible for enrollment in this school. High school
Table 2

Learning Strategies Specialist Demographic Data

<table>
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<th>Criteria</th>
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Table 3

Parent Demographic Data

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<tr>
<td>Total</td>
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</table>
aged students began instruction during the 2001-2002 school year. During the 2006-2007 school year, there were 1425 total students enrolled. Of these, 255, or 18% were students with disabilities. There were 26 teachers for the high school students. This represented a 28:1, student to teacher, ratio.

At the charter school, students complete most of their instruction in an online format, communicate with teachers via the internet and in face-to-face sessions weekly. Students attend classes at the campus one day each week for four hours of instruction. All students receive two hours of instruction and guidance from a content area teacher and two hours of study skills and learning strategy instruction from a Learning Strategies Specialist within an inclusive classroom setting.

This study took place within the learning strategies classroom. The classrooms included long tables that seat two to three students. The tables and chairs faced a teacher’s desk and a white board. Mounted high on the wall at the front of the classroom was a monitor that could be used to project power point presentations and other multimedia. Along three of the perimeter walls of each classroom was a bank of computers for use by the students during class time.

Materials

Possible Selves: Nurturing Student Motivation Instructor’s Manual

The Possible Selves: Nurturing Student Motivation (Hock et al., 2003) was designed to help students develop self-knowledge for the purpose of planning, setting, and acting upon goals. The manual consists of seven instructional lessons. Each lesson in the manual includes a stated purpose of the lesson, materials required to complete the lesson, and a script that teachers, in this study, used to present the components of the lesson (i.e.,
advance organizer, introduction and discussion of instructional materials specific to the lesson, student practice in completing the instructional materials, and post organizer).

Disability Awareness Lesson and Student Evaluation

A researcher-developed Disability Awareness Lesson was used to supplement the Possible Selves instructor’s manual. The lesson was designed to provide specific instruction to students about their disabilities. In this lesson, the students learned about their disability by reading their Individualized Education Program (IEP). The lesson content emphasized that everyone possesses individual strengths and individual weaknesses and that successful individuals work to capitalize on their strengths and compensate for their weaknesses. The lesson also included a Student Evaluation component. This provided students with an opportunity to reflect on what they learned in the lesson (see Appendix B).

Instrumentation

Four instruments were used in this study. They were: (a) the Student Self Rating Checklist administered as a pre- and post-measure, (b) the Student Rating by Teacher Checklist administered as a pre- and post-measure, (c) the Student Rating by Parent Checklist administered as a pre- and post-measure, and (d) the Student Narrative Measurement and rubric administered as a pre- and post-measure (see Appendixes C through F).

Student Self Rating Checklist, Student Rating by Teacher Checklist, and Student Rating by Parent Checklist

The Student Self Rating Checklist, the Student Rating by Teacher Checklist, and the Student Rating by Parent Checklist were adapted from checklists developed for a
previous study (Durlak, Rose, & Bursuck, 1994). Durlak et al. (1994) developed the checklists as a means to measure whether students learned self-determination behaviors through direct instruction and generalized use of those skills to other school settings. The researchers first developed a list of seven self-awareness and self-advocacy skills supported through research as being necessary for the success of students with disabilities in postsecondary education. Using Kazdin’s (1977) social validation procedures, 15 experts validated the list of skills. The experts were either coordinators of programs or specialists in the area of learning disabilities and were affiliated with community colleges, 4-year colleges or universities. They were asked to identify the skills that were important for success in postsecondary education, based on their experience. The criterion for acceptability for the final list was 80%. All seven of the skills submitted met the criteria. From this list, the checklists were developed. Copies of these forms were obtained from Dr. Durlak with the acknowledgement that they may be used without written permission because they were never copyrighted. The checklists used in this dissertation study were adapted from these forms.

The Student Self Rating Checklist, the Student Rating by Teacher Checklist, and the Student Rating by Parent Checklist consisted of 24 parallel statements. The first eight statements relate to student self-awareness. The next eight statements relate to student self-advocacy and the remaining eight statements relate to student ability to plan and work toward goals. A four-point Likert scale that ranged from Strongly Disagree to Strongly Agree was included for rating purposes (see Appendixes C through E). All three forms were used as pre- and post-test measures.
Student Narrative Measurement and Rubric

The researcher-developed Student Narrative Measurement was designed to align with the Possible Selves instruction. This narrative measurement provided space for students to describe: (a) self as a person, (b) self as a learner, (c) self as a worker, (d) individual strengths, (e) areas needing assistance, (f) accommodations needed in academic classes, and (g) goals for their future.

A rubric was designed to score student responses on this measurement. The rubric contained a five-point scale that was used to rate students' (a) description of self as a person, (b) description of self as a learner, (c) description of self as a worker, (d) clarity of strengths, (e) appropriateness of strengths, (f) clarity of accommodations, (g) appropriateness of accommodations, (h) clarity of goals, and (i) number of goals (see Appendix F). The narrative measurement and accompanying rubric were used as a pre- and post-test measure.

Design and Procedures

Phase One: Study Preparation

Research approvals. A panel of three Special Education faculty members and one Educational Psychology faculty member reviewed all of the methodology and instrumentation proposed and developed for use in this study. The disability awareness lesson plan and instruments used in this study along with the protocol for human subjects were submitted to the University of Nevada, Las Vegas, Institutional Review Board to assure that the study conformed to University and federal policies regarding the ethical use of human subjects in research. Upon approval, application was made to the charter school along with all forms required by their review board.
Obtaining Informed Consent. Sixty students were identified as eligible to participate in this study. Eligibility criteria included: (a) an identified learning disability and (b) enrollment in a class with one of the two Learning Strategies Specialists who volunteered to participate. The sixty students were given an explanation of the study and an envelope containing the informed consent forms, the Student Rating by Parent Checklist and a self-addressed stamped envelope. Students were asked to obtain signatures on the forms, have parents complete the Student Rating by Parent Checklist and to return the forms via mail. A subsequent mailing containing all of the necessary paperwork and a second self-addressed stamped envelope was sent. A total of 30 completed packets were returned. During the course of the study, two students dropped out of school and one student was expelled from school. Data obtained for these students were not included.

Informed consent from parents for their own participation as well as the participation of their minor child was obtained. Informed consent was obtained from the Learning Strategies Specialists for their participation in the study. There were six students who were 18 years old prior to the beginning of the study and were able to sign their own informed consent. Student assent was obtained from all twenty-seven students, regardless of age. These forms were required in order to assure that participation of the student, teacher, and parent participants was voluntary (see Appendixes G through K).

Obtaining permission to include copyrighted materials. Permission was obtained from the three co-creators of Possible Selves: Nurturing Student Motivation (Hock et al., 2003) to include material from the Instructor's Manual (see Appendix L). Specifically, permission was obtained to include four student forms that were used in the lessons (i.e., Possible Selves Questionnaire, Possible Selves Tree, Thinking About Possible Selves, and Action Plan).
Teacher training session. Learning Strategies Specialists included in the study were trained to teach the Disability Awareness Lesson and the Possible Selves program in one three-hour session. First, the Learning Strategies Specialists were instructed in the content and procedures for the disability awareness lesson.

Second, the Learning Strategies Specialists were introduced to the Possible Selves program. Each Learning Strategies Specialist was given a Possible Selves instructor's manual. The seven lessons that comprised the program (i.e., why study possible selves; discovering strengths and interests; thinking about hopes, expectations, and fears; sketching me and my possible selves; reflecting on goals; planning ways to reach goals; and working to reach goals) were discussed in detail with the Learning Strategies Specialists and the Research Assistant. Specifically, proper use of the student work products (i.e., the Possible Selves Questionnaire, Possible Selves Tree, Thinking About Possible Selves, and Action Plan) during the instructional lessons was demonstrated.

Third, the Learning Strategies Specialists were instructed in the proper distribution and collection of the instrumentation (i.e., Student Self Rating Checklist, Student Rating by Teacher Checklist, and Student Narrative Measurement) used in this study. Discussion of the instruments included when they were to be distributed during the study and how they were to be collected.

Fourth, the Learning Strategies Specialists were instructed that students would be allowed accommodations as needed as the student participants were individuals with a learning disability. Students were able to submit their forms electronically via computer or to orally complete the forms with the Learning Strategies Specialist transcribing the student's responses.
The training session concluded with observations of each of the Learning Strategies Specialists conducting a mock lesson from the Possible Selves instructor’s manual. The Procedural Validity Checklist was used to ensure that the lessons were implemented accurately. The specific behaviors assessed included following the lesson script, using appropriate pacing, using lesson materials appropriately, and reviewing the lesson content (see Appendix M). As soon as 100% inter-observer reliability was established for both Learning Strategies Specialists, the training session ended.

Group assignment. Students who attended the charter school were randomly assigned to classes without regard to having a disability at the time of application for attendance at the high school. Families were asked for two preferred days for attending school. Students were assigned to classes based on these stated preferences and available space in the classes. Each of the Learning Strategist’s intact classes was randomly assigned to either the treatment or control group. Each of the Learning Strategies Specialists taught two two-hour sessions Monday through Thursday. Each specialist taught one treatment group session and one control group section. On Friday, each Learning Strategist taught only one two-hour session. Thus, one strategist’s class was randomly assigned to the treatment group and the other strategist’s class was assigned to the control group. The two Learning Strategists included in this study taught both students in the control group (n = 13) and students in the treatment group (n = 14) of students to control for teacher effect as a variable in the outcomes of this study. After the study was completed, the students in the control group (n = 13) were offered the opportunity to receive instruction in the Possible Selves program. Similarly, students in the treatment group (n = 14) were offered the opportunity to receive instruction in the alternate instruction program. Thus, no student was denied instruction in either instructional program.
Phase Two: Pre-Test Administration

The Student Self Rating Checklist (see Appendix C) and the Student Narrative Measurement (see Appendix F) were administered to the student participants prior to the Disability Awareness Lesson (see Appendix B). The forms were divided into control and treatment groups and placed in large envelopes marked appropriately (i.e., Student Self Rating Checklist pre-control, Student Self Rating Checklist pretreatment, Student Narrative Measurement pre-control, and Student Narrative Measurement pretreatment).

The Student Rating by Teacher Checklist (see Appendix D) was given to the Learning Strategies Specialists to complete for each of the student participants. The completed checklists were divided into control and treatment groups and placed in large envelopes marked Student Rating by Teacher Checklist pre-control and Student Rating by Teacher Checklist pretreatment.

The returned Student Rating by Parent Checklists (see Appendix E) were separated into control and treatment groups and placed in large envelopes marked Student Rating by Parent Checklist pre-control and Student Rating by Parent Checklist pretreatment.

Pre-test data for each of the measures were entered into a database using SPSS 11 (SPSS, Inc., 2001).

Phase Three: Implementation of Instruction

Disability Awareness Lesson. All student participants were instructed in a researcher-developed lesson (see Appendix B). The Learning Strategies Specialist conducted the lesson in a two-hour session. Students were included in the sessions based on the days they attended the charter school and when they were scheduled in their two-hour homeroom time. This was done to assure that students' instruction during their scheduled time with the Learning Strategies Specialist was not interrupted. Instructional groups
included no more than four students per session and were completed in one school week.

The objective of the lesson was to instruct students with disabilities, included in the study, about their disability prior to beginning instruction. Students were instructed in the meanings of terms and phrases used in their IEP. Students reviewed and explored the present levels of functioning, goals and benchmarks, and accommodations and modifications identified in their IEP (see Appendix B). Table 4 provides a summary of the *Disability Awareness Lesson*.

Table 4

*Disability Awareness Lesson Structure*

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<tr>
<th>Lesson</th>
<th>Objectives</th>
<th>Assignment</th>
<th>Instructional Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher-developed</td>
<td>Review IEP</td>
<td>Complete a</td>
<td>2 hours</td>
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<tr>
<td>Disability Awareness Lesson</td>
<td>Learn what a disability is and is not</td>
<td>researcher-developed Student Evaluation</td>
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</tr>
<tr>
<td></td>
<td>Learn individual strengths and needs</td>
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</tr>
<tr>
<td></td>
<td>Learn individual accommodations and modifications and their use in academics and life</td>
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Treatment group. After completion of the Disability Awareness Lesson, Learning Strategists instructed students in the Possible Selves program. This program consisted of seven lessons, each requiring two hours to complete. Lesson 1 was titled Why Study Possible Selves? The objective for this lesson was to introduce students to the Possible Selves concept, provide an overview of the strategy, and to obtain a commitment from the student to participate. Students created their own Possible Selves Goal Folder, which was used in subsequent lessons.

Lesson 2 was titled Discovering Strengths and Interests. The purpose of this lesson was to make students aware of their strengths and interests. The assignment for this lesson was for the students to create a collage of their strengths and interests using magazines, clip art, and poster board.

Lesson 3 was titled Thinking About Hopes, Expectations, and Fears. The objective for this lesson was to have students identify their hopes, expectations, and fears for their future. Students were introduced to vocabulary specific to the Possible Selves program. In addition, students completed the Possible Selves Questionnaire (see Appendix N). Students completed the questionnaire in narrative style by responding to specific questions and/or statements. The four sections included on the questionnaire were: (a) Individual Strength, (b) Learner, (c) Person, and (d) Worker. Each section consisted of the same four statements and/or questions. The first question asked students to use words and phrases to describe themselves, including strengths, as an individual, a learner, a person, and a worker. The second question asked students what they hoped to achieve in each of the four areas. The third question asked students to list what they expected to achieve in each of the four areas. The fourth, and final, question asked students to state their fears regarding each of the four areas.

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Lesson 4 was titled *Sketching Me and My Possible Selves*. The objectives of this lesson were to have students highlight points from their completed *Possible Selves Questionnaire* and create a *Possible Selves Tree*, which graphically exhibited their hopes, expectations, and fears (see Appendix O). Students took the narrative information completed on the *Possible Selves Questionnaire* (see Appendix N) and used it to complete a graphic depiction of a tree with roots, trunk, limbs, and branches titled the *Possible Selves Tree* (see Appendix O). Students were expected to look at their tree and determine which roots and branches were strong and which needed to be strengthened.

Because no student performance rubric was included in the *Possible Selves* instructor’s manual, a researcher-developed rubric for the *Possible Selves Questionnaire* and *Possible Selves Tree* was used in order to score the responses of the students included in the study (see Appendixes N and O). The rubric consisted of four categories rated on a scale of one through five, with five being the highest score achievable. The four categories were: (a) description of self, (b) statement of hopes, (c) statement of expectations, and (d) statement of fears. Student responses were scored using this rubric.

Lesson 5 was titled *Reflecting On Goals*. The objective of this lesson was for students to evaluate their strengths and needs by using their *Possible Selves Questionnaire* (see Appendix N) and/or their *Possible Selves Tree* (see Appendix O). In addition, students were expected to be able to identify three short-term goals and prioritize those goals using the *Thinking About Possible Selves* form (see Appendix P). This form consisted of seven questions. Students responded in narrative form to the questions on the form. Students identified the tree limb with the most branches, the tree limb with the most hopeful or positive words, the limb with the fewest branches, the limb with the fewest hopeful or positive words, the limb that needed to be strengthened the most, the main
hope the student had to address that need, and three short-term goals to attain the hope identified.

Student responses were scored according to a researcher-developed rubric (see Appendix P). The rubric consisted of three questions. They were: (a) did the student write three goals, (b) did the goals pertain to areas that need strengthening on the Possible Selves Tree, and (c) did the student prioritize or rank the goals? Yes or no was checked dependent upon the students’ responses.

Lesson 6 was titled Planning Ways To Reach Goals. Students developed their first Action Plan on a form provided for that purpose in the Possible Selves manual (see Appendix Q). Students were taught to develop goals and provided with opportunities to put into practice action steps to achieve those goals. Students chose an area from their Possible Selves Questionnaire and Possible Selves Tree that needed strengthening and were expected to write what they hoped and to develop three action steps for that area.

A scoring rubric was developed to evaluate the students’ action plans completed by the students (see Appendix Q). It consisted of three questions: (a) did the student identify one hope, (b) did the student write a goal that pertained to that hope, and (c) did the student identify a minimum of three action steps needed to achieve the goal. The researcher collected copies of the first Action Plan as the teachers needed to retain the originals in order to continue to work with the students and assure maintenance of the skills learned in this program.

Lesson 7 was titled Working To Reach Goals. Students created a collage of their hopes, expectations, and fears for the future. They developed a personal mission statement that explained what they wanted to be and do in the future. Students composed a letter predicting their progress on using their Action Plan.
Each of the seven lessons had a similar structure. Instruction began with an advance organizer that stated what the lesson was, the objectives, and expected outcomes. Instructors then introduced the specific materials required for the lesson and generated discussion with the students regarding these materials. Students were then expected to complete the form or forms required for the specific lesson. Finally, instructors reviewed the lesson objectives and expected outcomes with the students as a review or post organizer. See Table 5 for a summary of the treatment group intervention.

Table 5

*Possible Selves Lesson Structure*

<table>
<thead>
<tr>
<th>Lessons</th>
<th>Objectives</th>
<th>Student Assignments</th>
<th>Instructional Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 1</td>
<td>Introduce <em>Possible Selves</em> concept</td>
<td>Write out commitment to participate</td>
<td>Two hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provide overview of strategy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Obtain commitment</td>
<td></td>
</tr>
<tr>
<td>Lesson 2</td>
<td>Make students aware of strengths and interests</td>
<td>Create a collage of strengths and interests</td>
<td>Two hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Create a collage</td>
<td></td>
</tr>
<tr>
<td>Lesson 3</td>
<td>Identify student hopes, expectations, and fears</td>
<td>Complete the <em>Possible Selves Questionnaire</em></td>
<td>Two hours</td>
</tr>
</tbody>
</table>

Table Continues
**Possible Selves Lesson Structure**

<table>
<thead>
<tr>
<th>Lessons</th>
<th>Objectives</th>
<th>Assignments</th>
<th>Instructional Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 4</td>
<td>Identify highlights of questionnaire</td>
<td>Complete the <em>Possible Selves</em> Tree</td>
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<tr>
<td></td>
<td>Create a graphic depiction</td>
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<td></td>
</tr>
<tr>
<td>Lesson 5</td>
<td>Evaluate strengths and needs</td>
<td>Complete the <em>Thinking About Possible Selves</em></td>
<td>Two hours</td>
</tr>
<tr>
<td></td>
<td>Identify long- and short-term goals</td>
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<tr>
<td></td>
<td>Prioritize their goals</td>
<td></td>
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</tr>
<tr>
<td>Lesson 6</td>
<td>Develop action plans relating to their goals</td>
<td>Complete one <em>Action Plan</em></td>
<td>Two hours</td>
</tr>
<tr>
<td>Lesson 7</td>
<td>Create a collage summarizing hopes, expectations and goals</td>
<td>Create a collage</td>
<td>Two hours</td>
</tr>
<tr>
<td></td>
<td>Develop a personal mission statement</td>
<td>Write a personal mission statement</td>
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</tr>
<tr>
<td></td>
<td>Write a prediction letter</td>
<td>Compose a prediction letter</td>
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</tr>
<tr>
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<td>letter on progress</td>
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<td></td>
</tr>
<tr>
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<td>toward action plan</td>
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</tr>
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</table>
Control group. Upon completion of the Disability Awareness Lesson, the Learning Strategies Specialists instructed students in the control group in an applied communications program. The objectives of this lesson were to provide students with practice and strategies in researching topics and developing papers and speeches on those topics. Lesson 1 in this instructional program was titled Group Survival. The purpose of this lesson was to instruct students in using social skills and critical thinking to work in a group. Students learned skills in sharing their ideas, encouraging others in their group, suggesting alternatives and exercising self-control. The subtopics in this lesson included: (a) listening skills, (b) speaking skills, (c) reading strategies, and (d) discussion. Students were assigned to groups and given a problem to solve. Each of the groups worked on developing a solution and presented that solution to the class. The culminating assignment for this lesson was for each student to complete a debriefing form that rated each team or group on their ability to work together and accomplish the task.

Lesson 2 was titled Learning a Language You Already Know. The objective of this lesson was for students to learn to more accurately understand body language as a means of improving their social skills and interactions with peers and adults. Subtopics included in this lesson were: (a) understanding non-verbal communication behaviors, (b) analyzing the impact of body language in specific circumstances, and (c) developing and improving one's own body language skills. Students watched a video clip and responded to ten questions regarding that clip. Each of the questions required the student to identify specific body movements and interpret their meaning.

Lesson 3 was titled The Great Debate. The objectives of this lesson were to use the social skills, critical thinking skills and understanding body language skills just previously learned to participate in a debate on illegal immigration. Students were
assigned to groups based on choosing one of four topics in illegal immigration. Each
student worked with group members to research and develop talking points on a specific
aspect of the illegal immigration topic. Students used the talking points to participate in a
class debate on the topic.

Lesson 4 was titled *Buy! Buy! Buy! Sell! Sell! Sell!* This lesson was designed to
provide instruction in the use of advertising techniques to persuade individuals to
purchase products. The objectives of this lesson were: (a) to research persuasive
materials, (b) to analyze persuasive advertising techniques, (c) to analyze an
advertisement for body language and persuasive techniques, and (d) to analyze the use of
color in advertising. Students chose an advertisement from print or video material. The
culminating assignment for this lesson was for students to use the analysis sheet
provided to analyze an advertisement. Students were able to submit their final product in
written format and they could also present their advertisement to the class.

Lesson 5 was titled *Song Lyrics Analysis.* Students reviewed poetic devices and
literary elements learned previously during the school year with the purpose of analyzing
the lyrics to a popular song. Students obtained approval from the instructor to use the
lyrics of a song of their choice. The objective of the lesson was to apply the poetic
devices and literary elements previously learned to analyze the meaning and intent of
specific lyrics. The culminating assignment was to complete a question guide and to
present their finding to the class.

Lesson 6 was titled *In My Humble Opinion.* The purpose of this lesson was to instruct
students in three formats for writing research papers and/or giving speeches. The three
formats were persuasive, expository and demonstration. Students learned about the
similarities and differences of each. They were then instructed to choose a format and

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begin research on a specific topic. The objectives were: (a) to write a thesis statement and introduction, (b) to develop ideas using details and evidence, (c) to effectively communicate ideas, and (d) to use body language to communicate organization, preparation and practice to an audience. The culminating assignment for this lesson was a research paper and a speech. See Table 6 for a summary of the control group intervention.

Each of the six lessons had a similar structure. Instruction began with an advance organizer that stated what the purpose of the lesson, the objectives, and the culminating assignment. Instructors then introduced the specific materials required for the lesson and entertained questions regarding the process and outcomes. Students were then expected to work in groups or individually as required by the assignment for each lesson. Finally, instructors reviewed the lesson objectives and assignments with the students as a review or post organizer. Total instructional time including the Disability Awareness Lesson for both the treatment group and the control group sessions was 16 hours.

Phase Four: Post-Test Administration

The Student Self Rating Checklist and the Student Narrative Measurement were administered to the student participants upon completion of the instructional intervention. Students completed the student forms during their regularly scheduled instructional times at the charter school. The post-tests were administered to students in groups of no more than four students during their two-hour homeroom time. The forms were divided into control and treatment groups and placed in large envelopes marked appropriately (i.e., Student Self Rating Checklist post-control, Student Self Rating Checklist post-treatment,
### Table 6

**Applied Communications Lesson Structure**

<table>
<thead>
<tr>
<th>Lessons</th>
<th>Objectives</th>
<th>Assignments</th>
<th>Instructional Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 1</td>
<td>To instruct students in using social skills and critical thinking to work in a group</td>
<td>Create a solution to a problem</td>
<td>Two hours</td>
</tr>
<tr>
<td>Lesson 2</td>
<td>To more accurately understand body language as a means of improving social skills</td>
<td>Answer questions regarding a video clip</td>
<td>Two hours</td>
</tr>
<tr>
<td>Lesson 3</td>
<td>To use social skills, critical thinking skills and understanding body language skills to participate in a debate on illegal immigration</td>
<td>Participate in a group debate</td>
<td>Two hours</td>
</tr>
<tr>
<td>Lesson 4</td>
<td>To research and analyze a print or video advertisement</td>
<td>Present findings to the class</td>
<td>Four hours</td>
</tr>
</tbody>
</table>

*Table Continues*
### Applied Communications Lesson Structure

<table>
<thead>
<tr>
<th>Lessons</th>
<th>Objectives</th>
<th>Assignments</th>
<th>Instructional Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 5</td>
<td>To apply poetic devices literary elements to analyze the meaning and intent of song lyrics</td>
<td>Complete a question guide Present their findings to the class</td>
<td>Two hours</td>
</tr>
<tr>
<td>Lesson 6</td>
<td>To use researched details and evidence to write a paper</td>
<td>Create a research paper and present a speech</td>
<td>Two hours</td>
</tr>
</tbody>
</table>

To effectively communicate ideas using body language

---

*Student Narrative Measurement* post-control, and *Student Narrative Measurement* post-treatment.

The *Student Rating by Teacher Checklist* was given to the Learning Strategies Specialists to complete for each of the student participants. The completed checklists were divided into control and treatment groups and placed in large envelopes marked *Student Rating by Teacher Checklist* post-control and *Student Rating by Parent Checklist* post-control.
Parents, students and Learning Strategies Specialists were invited to attend a meeting upon completion of the instruction. Parents attending completed the Student Rating by Parent Checklist at this meeting. Students who brought a parent were given a $5.00 gift certificate to Blockbuster Video as a thank you. The parent checklists were divided into control and treatment groups and placed in large envelopes marked Student Rating by Parent Checklist post-control and Student Rating by Parent Checklist post-treatment.

Post-test data for each of the measures were entered into a database using SPSS 11 (SPSS, Inc., 2001).

Fidelity of Treatment

To ensure fidelity of treatment, the Learning Strategies Specialists were each observed each time they taught the Possible Selves program. Their schedule consisted of teaching nine two-hour sessions weekly, Monday through Friday. Observations were conducted during each treatment group instructional session for a total of 72 sessions. Inter-observer data were collected during 25%, or 18, of the instructional sessions with the researcher and research assistant simultaneously observing. The Procedural Validity Checklist (see Appendix M) was used during these sessions. The checklist identified specific effective instructional procedures that were used in each of the lessons in the Possible Selves program (i.e., following the lesson script, using appropriate pacing, using lesson materials appropriately, and reviewing the lesson content). The checklist consisted of a list of four procedures with two columns for responding, either yes or no. Observers checked the appropriate column for each of the four procedures during each observation. Inter-observer reliability was calculated using the formula agreements divided by
agreements plus disagreements multiplied by 100 (Barlow, & Hersen, 1984). Inter-
observer reliability was 94.4%.

Inter-rater data were also obtained. The researcher and research assistant scored each
of the pre- and post-test checklists for the students, teachers and parents. Both also scored
the Student Narrative Measurement to assure that the scoring was reliable. There was
100% agreement on the scoring of the checklists and Student Narrative Measurements.

Data Analysis

Pre- and post-test data were entered into a database using the SPSS 11, a statistical
software package, (SPSS, Inc., 2001). Data were separated between students, teachers
and parents for each of the groups (i.e., those receiving instruction in the Possible Selves
program [treatment group; n = 14] and those receiving instruction in the applied
communications lessons [control group; n = 13]). Demographic data were entered into a
database to obtain cumulative information for each of the groups.

Research questions were analyzed in the following manner:

Research Question 1: Do the perceptions of self-awareness among students with
disabilities change as a result of instruction in the Possible Selves program with
supplemental disability lesson? Pre- and Post-test scores obtained using the first eight
statements on the Student Self Rating Checklist for students in the treatment group and
the control group were analyzed using a one-way repeated measures analysis of variance
(ANOVA) and significance level was set at p < .05. Questions one through four of the
Student Narrative Measurement were used to analyze the pre- and post-perceptions of
students' self-awareness within and between each of the groups. Student responses were
analyzed and converted to a five-point scale using the rubric. Scores were analyzed using
a series of four one-way repeated measures ANOVAs and significance level was set at p < .05.

Research Question 2: Do the perceptions of self-advocacy among students with disabilities change as a result of instruction in the Possible Selves program with supplemental disability lesson? Pre- and Post-test scores obtained using the second eight statements on the Student Self Rating Checklist for students in the treatment group and the control group were analyzed using a one-way repeated measures ANOVA and significance level was set at p < .05. Questions five and six of the Student Narrative Measurement were used to analyze the pre- and post-perceptions of students' self-advocacy skills within and between each of the groups. Student responses were analyzed and converted to a five-point scale using the rubric. Scores were analyzed using a series of two one-way repeated measures ANOVAs and significance level was set at p < .05.

Research Question 3: Do the perceptions of goal setting abilities among students with disabilities change as a result of instruction in the Possible Selves program with supplemental disability lesson? Pre- and Post-test scores obtained using the last eight statements on the Student Self Rating Checklist for students in the treatment group and the control group were analyzed using a one-way repeated measures ANOVA and significance level was set at p < .05. Question seven of the Student Narrative Measurement was used to analyze the pre- and post-perceptions of students' goal setting skills within and between each of the groups. Student responses were analyzed and converted to a five-point scale using the rubric. Scores were analyzed using a one-way repeated measures and significance level was set at p < .05.

Research Question 4: Do student perceptions differ from teacher perceptions and parent perceptions related to student self-awareness? A one-way between groups
ANOVA was conducted to compare the post-test scores of student, teacher and parent perceptions related to student self-awareness and significance level was set at \( p < .05 \).

Research Question 5: Do student perceptions differ from teacher perceptions and parent perceptions related to student self-advocacy skills? A one-way between groups ANOVA was conducted to compare the post-test scores of student, teacher and parent perceptions related to student self-advocacy skills and significance level was set at \( p < .05 \).

Research Question 6: Do student perceptions differ from teacher perceptions and parent perceptions related to student goal setting ability? A one-way between groups ANOVA was conducted to compare the post-test scores of student, teacher and parent perceptions related to student goal setting abilities and significance level was set at \( p < .05 \).

Research Question 7: How well do students perform in lesson assignments within the Possible Selves program with supplemental disability lesson? Descriptive statistics were used to report student performance on written assignments (see Appendixes N through Q) included in the instructional intervention. Researcher constructed rubrics (see Appendixes N through Q) were used to determine performance levels.
CHAPTER 4

RESULTS

The purpose of this study was to investigate the effects of the Possible Selves program (Hock et al., 2003) with a supplemental disability awareness lesson on perceptions related to self-awareness, self-advocacy, and goal setting among adolescents with disabilities, their teachers and their parents. Student performance within the program was also investigated. A total of seven research questions were answered in this study. Research questions were constructed to analyze student perceptions, perceptions of their teachers and perceptions of their parents related to the self-determination skills of the student with disabilities. Specifically, the self-determination skills of self-awareness, self-advocacy, and goal setting abilities were examined in this study. This chapter is organized according to the research questions. After a restatement of each question, the data analysis procedures that were used to answer the question as well as the results obtained are reported. Following the results for each research question, interscorer reliability data for the Possible Selves assignments is reported.
Research Questions

Question 1: Do the perceptions of self-awareness among students with disabilities change as a result of instruction in the Possible Selves program with supplemental disability lesson?

The Student Self Rating Checklist (see Appendix C) was the instrument used to analyze data to answer this research question. Students’ pre- and post-test scores on the eight statements from this checklist that pertained to student self-awareness of their disability were compared for the control (n = 13) and treatment (n = 14) groups. Each statement on the checklist was rated on a four-point Likert scale. The sum of the scores from the eight statements for the pre-test and post-test was calculated and used as the comparison. The eight statements pertaining to self-awareness were: (a) I communicate well with teachers, (b) I take responsibility for my behavior, (c) I can define my disability, (d) I know how my disability affects me in school, (e) I can describe my academic strengths and weaknesses to teachers, (f) I can describe my social strengths and weaknesses to teachers, (g) I communicate well with other students, and (h) I understand the consequences of my behavior. A one-way repeated measures analysis of variance (ANOVA) was used to analyze and compare the scores for the groups. Total scores for the eight self-awareness statements from the pre-test and post-test were used. Two independent measures were examined. The first independent measure was group assignment and was examined as a between subjects variable with two levels (i.e., treatment versus control). The second independent measure was time and was examined as a within subjects variable with two levels (i.e., pre-test and post-test). The results indicate there was a significant main effect for time (i.e., pre- to post-test) \[ F(1, 25) = \]
25.75, \( p = .000 \). However, there was not a significant time (i.e., pre- to post-test) by group (i.e., control X treatment) \([F(1, 25) = 1.46, p = .238]\) interaction. These data indicate that students in both the control and treatment groups improved perceptions of their self-awareness from the pre- to post-test but there was no significant difference between the groups. The means and standard deviations for each group are presented in Table 7.

Table 7

<table>
<thead>
<tr>
<th>Source</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Treatment Group</td>
<td>23.07</td>
<td>4.95</td>
</tr>
<tr>
<td>Control Group</td>
<td>26.31</td>
<td>3.92</td>
</tr>
</tbody>
</table>

The Student Narrative Measurement (see Appendix F) was also used to analyze data for this question. Student responses to statements one through four on the measurement were scored and compared from pre- to post-test. A series of four, one-way repeated measures ANOVA were used to evaluate the impact of the instruction on student self-awareness on each of the four student responses. The four statements were: (a) describe yourself as a person, (b) describe yourself as a learner, (c) describe yourself as a worker, and (d) describe your strengths. Each response was examined as a dependent variable.
Two independent measures were examined. The first independent measure was group assignment and was examined as a between subjects variable with two levels (i.e., treatment versus control). The second independent measure was time and was examined as a within subjects variable with two levels (i.e., pre-test versus post-test).

For statement one, the results indicate there was a significant main effect for time (i.e., pre- to post-test) \( [F(1, 25) = 17.54, p = .000] \). However, there was no significant interaction for time (i.e., pre- to post-test) by group (i.e., control X treatment) \( [F(1, 25) = .994, p = .328] \). For statement two, the results indicate neither a significant main effect \( [F(1, 25) = .926, p = .345] \) nor a significant interaction \( [F(1, 25) = .926, p = .345] \). There was no significant main effect for statement three \( [F(1, 25) = 7.16, p = .013] \) nor a significant interaction \( [F(1, 25) = .644, p = .430] \). There was no significant main effect for statement four \( [F(1, 25) = .437, p = .515] \) nor a significant interaction \( [F(1, 25) = 3.26, p = .083] \). This indicates that students in both the control and treatment groups only improved from pre-test to post-test in their self-awareness as a person. The means and standard deviations for questions one through four are presented in Table 8.

Question 2: Do the perceptions of self-advocacy among students with disabilities change as a result of instruction in the Possible Selves program with supplemental disability lesson?

The Student Self Rating Checklist (see Appendix C) was the instrument used to analyze data to answer this research question. Students’ pre-test and post-test scores on the eight statements from this checklist that pertained to student self-advocacy were compared for the control (n = 13) and treatment (n = 14) groups. Each statement on the
Table 8

**Means and Standard Deviations for Statements One through Four on Student Narrative Measurement**

<table>
<thead>
<tr>
<th>Source</th>
<th>Pre-Test</th>
<th></th>
<th>Post-Test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>1: Describe self as person</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment group</td>
<td>1.14</td>
<td>.66</td>
<td>1.64</td>
<td>.74</td>
</tr>
<tr>
<td>Control group</td>
<td>1.15</td>
<td>.55</td>
<td>1.46</td>
<td>.66</td>
</tr>
<tr>
<td>2: Describe self as learner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment group</td>
<td>1.79</td>
<td>1.12</td>
<td>1.93</td>
<td>.10</td>
</tr>
<tr>
<td>Control group</td>
<td>1.62</td>
<td>.87</td>
<td>1.62</td>
<td>.87</td>
</tr>
<tr>
<td>3: Describe self as worker</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment group</td>
<td>1.57</td>
<td>1.09</td>
<td>1.86</td>
<td>1.03</td>
</tr>
<tr>
<td>Control group</td>
<td>1.38</td>
<td>.65</td>
<td>1.54</td>
<td>.66</td>
</tr>
<tr>
<td>4: Describe strengths</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment group</td>
<td>2.57</td>
<td>1.22</td>
<td>2.43</td>
<td>1.16</td>
</tr>
<tr>
<td>Control group</td>
<td>2.00</td>
<td>.71</td>
<td>2.31</td>
<td>1.03</td>
</tr>
</tbody>
</table>

checklist was rated on a four-point Likert scale. The sum of the scores from the eight statements for the pre- and post-test was calculated and used as the comparison. The eight statements pertaining to self-advocacy were: (a) I know how to ask for help from teachers, (b) I participate in class discussions appropriately, (c) I make eye contact with persons to whom I am speaking, (d) I ask for appropriate help from other students, (e) I
ask for appropriate help from teachers, (f) I ask questions when I do not understand, (g) I can work by myself when appropriate, and (h) I feel confident about my academic abilities. A one-way repeated measures ANOVA was used to analyze and compare the scores for the groups. Total scores for the eight self-advocacy statements from the pre-test and post-test were used. Two independent measures were examined. The first independent measure was group assignment and was examined as a between subjects variable with two levels (i.e., treatment versus control). The second independent measure was time and was examined as a within subjects variable with two levels (i.e., pre-test and post-test). The results indicate there was a significant main effect for time (i.e., pre-to post-test) \( F(1, 25) = 31.238, p = .000 \). However, there was not a significant time (i.e., pre-to post-test) by group (i.e., control X treatment) interaction \( F(1, 25) = .019, p = .891 \). These data indicate that students in both the control and treatment groups improved perceptions of their self-advocacy from the pre-to post-test but there was no significant difference between the groups. The means and standard deviations for each group are presented in Table 9.

The Student Narrative Measurement (see Appendix F) was also used to analyze data for this question. Student responses to statements five and six on the measurement were scored and compared from pre-test to post-test. A series of two, one-way repeated measures ANOVA were used to evaluate the impact of the instruction on student self-advocacy on each of the two student responses. The two statements were: (a) describe the areas in which you need assistance and (b) describe the accommodations that benefit you in your academic classes. Each response was examined as a dependent variable. Two independent measures were examined. The first independent measure was group
The results of statement five indicate there was not a significant main effect for time (i.e., pre- to post-test) \( [F(1, 25) = .000, p = .991] \). Additionally, there was not a significant time (i.e., pre- to post-test) by group (i.e., control X treatment) interaction \( [F(1, 25) = .089, p = .768] \). Results for statement six were similar. There was neither a significant main effect for time \( [F(1, 25) = 2.00, p = .169] \) nor a significant time by group interaction \( [F(1, 25) = .003, p = .959] \). These results indicate that neither control nor treatment students demonstrated significant changes from pre-test to post-test related to the identification of needed assistance nor beneficial accommodations in their academic classes. The means and standard deviations for statements five and six are presented in Table 10.

<table>
<thead>
<tr>
<th>Source</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Treatment Group</td>
<td>23.43</td>
<td>5.18</td>
</tr>
<tr>
<td>Control Group</td>
<td>24.08</td>
<td>4.01</td>
</tr>
</tbody>
</table>
Table 10

Means and Standard Deviations for Statements Five and Six on Student Narrative Measurement

<table>
<thead>
<tr>
<th>Source</th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>5: Areas Needing Assistance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment group</td>
<td>2.57</td>
<td>1.22</td>
</tr>
<tr>
<td>Control group</td>
<td>2.23</td>
<td>1.36</td>
</tr>
<tr>
<td>6: Beneficial Accommodations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment group</td>
<td>2.71</td>
<td>1.59</td>
</tr>
<tr>
<td>Control group</td>
<td>2.00</td>
<td>1.63</td>
</tr>
</tbody>
</table>

Question 3: Do the perceptions of goal setting abilities among students with disabilities change as a result of instruction in the Possible Selves program with supplemental disability lesson?

The Student Self Rating Checklist (see Appendix C) was the instrument used to analyze data to answer this research question. Students’ pre-test and post-test scores on the eight statements from this checklist that pertained to student goal setting ability were compared for the control (n = 13) and treatment (n = 14) groups. Each statement on the checklist was rated on a four-point Likert scale. The sum of the scores from the eight statements for the pre-test and post-test was calculated and used as the comparison. The
eight statements pertaining to goal setting were: (a) I set appropriate goals based on my abilities, (b) I try to reach my goals, (c) I attend IEP meetings and help set appropriate goals, (d) I believe that there is a connection between my learning and my goals, (e) I am confident about my future upon graduation from high school, (f) I have an action plan for pursuing my goals, (g) I know how to work toward meeting my goals, and (h) I set goals related to my strengths and interests. A one-way repeated measures ANOVA was used to analyze and compare the scores for the groups. Total scores for the eight goal setting statements from the pre-test and post-test were used. Two independent measures were examined. The first independent measure was group assignment and was examined as a between subjects variable with two levels (i.e., treatment versus control). The results indicate there was a significant main effect for time (i.e., pre- to post-test) \([F(1, 25) = 11.987, p = .002]\). However, there was not a significant time (i.e., pre- to post-test) by group (i.e., control X treatment) interaction \([F(1, 25) = 2.021, p = .168]\). These data indicate that students in both the control and treatment groups demonstrated improved perceptions on their goal setting abilities from the pre- to post-test but there was no significant difference between the groups. The means and standard deviations for each group are presented in Table 11.

The Student Narrative Measurement (see Appendix F) was also used to analyze data for this question. Student responses to statement seven on the measurement were scored and compared from pre-test to post-test. A one-way repeated measures ANOVA was used to evaluate the impact of the instruction on student goal setting abilities on the student responses. Students were asked to describe their goals for their future in statement seven. The response was examined as a dependent variable. Two independent measures

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Table 11

Means and Standard Deviations for Goal Setting Ability on Student Self Rating Checklist

<table>
<thead>
<tr>
<th>Source</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Treatment Group</td>
<td>25.21</td>
<td>4.08</td>
</tr>
<tr>
<td>Control Group</td>
<td>23.00</td>
<td>8.40</td>
</tr>
</tbody>
</table>

were examined. The first independent measure was group assignment and was examined as a between subjects variable with two levels (i.e., treatment versus control). The second independent measure was time and was examined as a within subjects variable with two levels (i.e., pre- versus post-test).

The results on question seven indicate there was a significant main effect for time (i.e., pre- to post-test) \( [F(1, 25) = 9.72, p = .005] \). However, there was not a significant time (i.e., pre- to post-test) by group (i.e., control X treatment) interaction \( [F(1, 25) = 3.22, p = .085] \). These data indicate that students in both the control and treatment groups demonstrated improved perceptions related to goal setting abilities. However, there was no significant difference between the student responses between the groups. The mean and standard deviation for question seven is presented in Table 12.

Inter-scorer data were collected on scoring the Student Narrative Measurement at pre- and post-test. There were a total of 486 items on the measurements. The rubric for the
Table 12

Means and Standard Deviations for Statement Seven on Student Narrative Measurement

<table>
<thead>
<tr>
<th>Source</th>
<th>Pre-Test</th>
<th></th>
<th>Post-Test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>7: Describe goals for future</td>
<td>1.71</td>
<td>.726</td>
<td>2.29</td>
<td>.914</td>
</tr>
<tr>
<td>Treatment group</td>
<td>1.46</td>
<td>.967</td>
<td>1.62</td>
<td>1.19</td>
</tr>
<tr>
<td>Control group</td>
<td>1.46</td>
<td>.967</td>
<td>1.62</td>
<td>1.19</td>
</tr>
</tbody>
</table>

Student Narrative Measurement consisted of nine categories for scoring. Each of the categories was rated on a scale ranging from zero to four with zero indicating no response (see Appendix F). Using the formula agreements/agreements + disagreements X 100 (Barlow & Hersen, 1994), inter-scorer agreement was calculated to be 98.1% [477/486 X 100 = 98.1%]. Inter-scorer data are presented in Table 13.

Question 4: Do student perceptions differ from teacher perceptions and parent perceptions related to student self-awareness?

A one-way between groups ANOVA was conducted to compare the post-test scores of student, teacher and parent perceptions related to student self-awareness. Using the post-test results from the Student Self Rating Checklist (see Appendix C), the Student Rating by Teacher Checklist (see Appendix D), and the Student Rating by Parent Checklist (see Appendix E), the total scores of the eight parallel statements related to self-awareness from each of the checklists was used. Each statement on each of the checklists was rated on a four-point Likert scale. The sum of the scores from the eight statements from each of the checklists for the post-test was calculated and used as the
Table 13

Inter-scorer Agreement on the Student Narrative Measurement

<table>
<thead>
<tr>
<th>Source</th>
<th>Agreements/(Agreements + Disagreements)</th>
<th>Percent of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Narrative</td>
<td>477/486</td>
<td>98.1%</td>
</tr>
</tbody>
</table>

Measurement Items

comparison. The eight parallel statements related to self-awareness were: (a) I/Student communicate(s) well with teachers, (b) I/Student take(s) responsibility for my(his/her) behavior, (c) I/Student can define my(his/her) disability, (d) I/Student know(s) how my(his/her) disability affects me(him/her) in school, (e) I/Student can describe my(his/her) academic strengths and weaknesses to teachers, (f) I/Student can describe my(his/her) social strengths and weaknesses to teachers, (g) I/Student communicate(s) well with other students, and (h) I/Student understand(s) the consequences of my(his/her) behavior. Teacher ratings and parent ratings were separated into treatment group and control group based on the group assignment of the student. The dependent measures consisted of eight parallel statements from the Student Self Rating Checklist (see Appendix C), the Student Rating by Teacher Checklist (see Appendix D) and the Student Rating by Parent Checklist (see Appendix E). Two independent measures were examined. The first independent measure was respondent and was examined as a between subjects variable with three levels (i.e., student, teacher, and parent). The second independent measure was group assignment and was examined as a between subjects
variable with two levels (i.e., treatment versus control). A significant main effect was observed for respondent \( F(2, 78) = 25.42, p = .000 \). Post hoc comparisons using the Bonferroni test with an adjusted alpha level of .0167 (.05/3) revealed significant differences between student ratings and those provided by both teacher and parent. No significant main effect was observed for group \( F(1, 25) = .968, p = .328 \) nor was there significance observed for the respondent by group interaction \( F(2, 78) = 1.42, p = .249 \). These data indicate that at post-test, students’ perceptions related to their self-awareness of their disability were higher than either their teachers’ perceptions or those of their parents. The means and standard deviations for each group are presented in Table 14.

Question 5: Do student perceptions differ from teacher perceptions and parent perceptions related to student self-advocacy skills?

A one-way between groups ANOVA was conducted to compare the post-test scores of student, teacher and parent perceptions related to student self-advocacy skills. Using the post-test results from the Student Self Rating Checklist (see Appendix C), the Student Rating by Teacher Checklist (see Appendix D), and the Student Rating by Parent Checklist (see Appendix E), the total scores of the eight parallel statements related to self-advocacy from each of the checklists was used. Each statement on each of the checklists was rated on a four-point Likert scale. The sum of the scores from the eight statements from each of the checklists for the post-test was calculated and used as the comparison. The eight parallel statements related to self-advocacy were: (a) I/Student know(s) how to ask help from teachers, (b) I/Student participate(s) in class discussions appropriately, (c) I/Student make(s) eye contact with persons to whom I(h/she) am/is
Table 14  

Comparison of Student, Teacher and Parent on Student Self-Awareness, Self-Advocacy, and Goal Setting Ability by Group Assignment

<table>
<thead>
<tr>
<th>Source</th>
<th>Student</th>
<th>Teacher</th>
<th>Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Self-Awareness:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment group</td>
<td>26.07</td>
<td>2.62</td>
<td>21.50</td>
</tr>
<tr>
<td>Control group</td>
<td>28.15</td>
<td>2.54</td>
<td>20.54</td>
</tr>
<tr>
<td>Self-Advocacy:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment group</td>
<td>26.50</td>
<td>2.50</td>
<td>20.21</td>
</tr>
<tr>
<td>Control group</td>
<td>27.00</td>
<td>2.61</td>
<td>19.08</td>
</tr>
<tr>
<td>Goal Setting:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment group</td>
<td>27.14</td>
<td>3.37</td>
<td>19.21</td>
</tr>
<tr>
<td>Control group</td>
<td>27.62</td>
<td>2.72</td>
<td>18.08</td>
</tr>
</tbody>
</table>

speaking, (d) I/Student ask(s) for appropriate help from other students, (e) I/Student ask(s) for appropriate help from teachers, (f) I/Student ask(s) questions when I(h/she) do/does not understand, (g) I/Student can work by my(him/her)self when appropriate, and (h) I/Student feel(appears to feel) confident about my(his/her) academic abilities. Teacher ratings and parent ratings were separated into treatment group and control group based
on the group assignment of the student. The dependent measures consisted of eight parallel statements from the *Student Self Rating Checklist* (see Appendix C), the *Student Rating by Teacher Checklist* (see Appendix D) and the *Student Rating by Parent Checklist* (see Appendix E). Two independent measures were examined. The first independent measure was respondent and was examined as a between subjects variable with three levels (i.e., student, teacher, and parent). The second independent measure was group assignment and was examined as a between subjects variable with two levels (i.e., treatment versus control). A significant main effect was observed for respondent \(F(2, 78) = 28.325, p = .000\). Post hoc comparisons using the Bonferroni test with an adjusted alpha level of .0167 (.05/3) revealed significant differences between student ratings and those provided by both teacher and parent. No significant main effect was observed for group \(F(1, 25) = .002, p = .963\) nor was there significance observed for the respondent by group interaction \(F(2, 78) = .482, p = .620\). These data indicate that at post-test, students' perceptions related to their perceptions of their self-advocacy skills were significantly higher than either their teachers' perceptions or those of their parents. The means and standard deviations for each group are presented in Table 14.

**Question 6: Do student perceptions differ from teacher perceptions and parent perceptions related to student goal setting ability?**

A one-way between groups ANOVA was conducted to compare the post-test scores of student, teacher and parent perceptions related to student goal setting abilities. Using the post-test results from the *Student Self Rating Checklist* (see Appendix C), the *Student Rating by Teacher Checklist* (see Appendix D), and the *Student Rating by Parent Checklist* (see Appendix E), the total scores of the eight parallel statements related to goal
setting from each of the checklists was used. Each statement on each of the checklists was rated on a four-point Likert scale. The sum of the scores from the eight statements from each of the checklists for the post-test was calculated and used as the comparison. The eight parallel statements related to goal setting abilities were: (a) I/Student set(s) appropriate goals based on my(his/her) abilities, (b) I/Student try(ies) to reach my(his/her) goals, (c) I/Student attend(s) IEP meetings and help(s) set appropriate goals, (d) I/Student believe(s) that there is a connection between my(his/her) learning and my(his/her) goals, (e) I/Student am(is) confident about my(his/her) future upon graduation from high school, (f) I/Student have(has) an action plan for pursuing my(his/her) goals, (g) I/Student know(s) how to work toward meeting my(his/her) goals, and (h) I/Student set(s) goals related to my(his/her) strengths and interests. Teacher ratings and parent ratings were separated into treatment group and control group based on the group assignment of the student. The dependent measures consisted of eight parallel statements from the Student Self Rating Checklist (see Appendix C), the Student Rating by Teacher Checklist (see Appendix D) and the Student Rating by Parent Checklist (see Appendix E). Two independent measures were examined. The first independent measure was respondent and was examined as a between subjects variable with three levels (i.e., student, teacher, and parent). The second independent measure was group assignment and was examined as a between subjects variable with two levels (i.e., treatment versus control). A significant main effect was observed for respondent \( F(2, 78) = 42.612, p = .000 \). Post hoc comparisons using the Bonferroni test with an adjusted alpha level of .0167 (.005/3) revealed significant differences between student ratings and those provided by both teacher and parent. No significant main effect was observed for
group \( F(1, 25) = .275, p = .601 \) nor was there significance observed for the respondent by group interaction \( F(2, 78) = .350, p = .706 \). These data indicate that at post-test, students' perceptions related to their goal setting abilities were higher than either their teachers' perceptions or those of their parents. The means and standard deviations for each group are presented in Table 14.

Question 7: How well do students perform on lesson assignments within the Possible Selves program with supplemental disability lesson?

Students included in the treatment group were required to complete four assignments specific to the Possible Selves instruction program. The assignments were: (a) Possible Selves Questionnaire, (b) Possible Selves Tree, (c) Thinking About Possible Selves form, and (d) Action Plan (see Appendixes N through Q). Descriptive statistics were used to report student performance on written assignments included in the instructional intervention. Researcher constructed rubrics (see Appendixes N through Q) were used to determine performance levels. The Possible Selves Questionnaire and Possible Selves Tree were scored using the same rubric (see Appendixes N and O). The rubric included four categories each scored using a five-point scale. Therefore, the total possible score would be 20 points. The mean percentage for the Possible Selves Questionnaire was 84% and 80% for the Possible Selves Tree. The means, standard deviations and ranges for the Possible Selves Questionnaire and the Possible Selves Tree are presented in Table 15.

The Thinking About Possible Selves form and Action Plan form were scored using a rubric on which a yes response was scored as 1 and a no response was scored as zero (see Appendixes P and Q). The rubric for the Thinking About Possible Selves form contained three categories. Therefore, the total possible score was three points. The rubric for the
Table 15  

*Means and Standard Deviations for Possible Selves Questionnaire and Possible Selves Tree Forms*

<table>
<thead>
<tr>
<th>Source</th>
<th>Means</th>
<th>Standard Deviations</th>
<th>Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible Selves</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questionnaire Form</td>
<td>16.79</td>
<td>2.67</td>
<td>12-20</td>
</tr>
<tr>
<td>Possible Selves Tree Form</td>
<td>16.00</td>
<td>3.98</td>
<td>10-20</td>
</tr>
</tbody>
</table>

*Action Plan* form contained six categories. Therefore, the total possible score was six points. The mean percentage for the *Thinking About Possible Selves* was 58% and 86% for the *Action Plan*. The means and standard deviations for the *Thinking About Possible Selves* form and the *Action Plan* form are presented in Table 16.

Table 16  

*Means and Standard Deviations for Thinking About Possible Selves and Action Plan Forms*

<table>
<thead>
<tr>
<th>Source</th>
<th>Means</th>
<th>Standard Deviations</th>
<th>Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thinking About Possible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selves Form</td>
<td>1.75</td>
<td>1.05</td>
<td>0-3</td>
</tr>
<tr>
<td>Action Plan Form</td>
<td>5.14</td>
<td>1.41</td>
<td>2-6</td>
</tr>
</tbody>
</table>
Inter-scorer Agreement for Possible Selves Assignments

Inter-scorer reliability data were collected for the Possible Selves Questionnaire, the Possible Selves Tree, the Thinking About Possible Selves form, and the Action Plan form. Each of these measures was scored using a researcher-developed rubric (see Appendixes N through Q). The formula agreements/agreements + disagreements × 100 (Barlow & Hersen, 1994) was used to calculate inter-scorer reliability percentages. The results are reported in Table 17.

Table 17

Inter-scorer Agreement on the Possible Selves Assignments

<table>
<thead>
<tr>
<th>Source</th>
<th>Percent of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible Selves Questionnaire items</td>
<td>92.9%</td>
</tr>
<tr>
<td>Possible Selves Tree items</td>
<td>94.6%</td>
</tr>
<tr>
<td>Thinking About Possible Selves items</td>
<td>100%</td>
</tr>
<tr>
<td>Action Plan items</td>
<td>100%</td>
</tr>
</tbody>
</table>

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Summary of Findings

Data from the student checklists indicate that students included in both the control and treatment groups significantly increased their self-perceptions related to the self-determination skills of self-awareness, self-advocacy and goal setting from pre-test to post-test. Data obtained from the Student Narrative Measurement, pre-test to post-test, suggest that students in both the control and treatment groups learned to include their disability in their description of self (i.e., self-awareness as a person) and also improved in goal setting. Student post-test perceptions were significantly higher than either teacher or parent perceptions related to student abilities related to self-awareness, self-advocacy skills, and goal setting skills. Discussion related to these findings is provided in Chapter 5.
CHAPTER 5

DISCUSSION

There is evidence in the literature that students with disabilities can be taught self-determination skills and can generalize the use of these skills to general education classroom settings (Agran et al., 2002; Carter et al., 2006; Durlak et al., 1994; Grigal et al., 2003; Martin et al., 2003). Student, teacher, and parent perceptions related to student abilities to learn and use self-determination skills have also been studied (Agran et al., 2002; and Durlak et al., 1994). Researchers involved in these studies used these data to conclude that students need to learn to act as self-determined individuals in circumstances that extend beyond participation in their IEP meetings.

Studies have been conducted to more explicitly define the specific skills included in self-determination. Specifically, research has been conducted on defining and developing the self-awareness skills, self-advocacy skills, and goal setting skills of individuals with disabilities (Raskind et al., 1999; Reiff, 2004; Stone & May, 2002; Test et al., 2005; Test & Neale, 2004; and Wehmeyer et al., 2003). Findings from these studies indicate that it is important for students with disabilities to learn self-determination skills. Learning these skills can make the difference between success and failure as students transition from high school to adult life, including employment and postsecondary education.
One theory for encouraging young people to think about their future is the possible selves theory (Markus & Nurius, 1986). The possible selves theoretical framework includes three ways for an individual to consider their future (i.e., a hoped for possible self, a feared possible self, and an expected possible self). Researchers have used the possible selves theory to instruct students in developing more positive self-identities, including gender and ethnicity (Cross & Markus, 1994; Lips, 2004; Oyserman et al., 2006), in improving academic achievement for students (Anderman et al., 1999; Pizzolato, 2006), and in studying successful transition from elementary school to middle school for adolescents (Aikins et al. (2005).

The current study extends the literature in the following ways. First, the current study focuses on the specific self-determination skills of self-awareness, self-advocacy, and goal setting. Second, the current study seeks to obtain and analyze quantitative data in a naturalistic setting with a control group and a treatment group of students with disabilities. Third, student, parent and teacher perceptions related to student abilities were collected in order to compare and analyze similarities and differences. Finally, a possible selves program is used as the instructional intervention for the treatment group.

Discussion of Findings

The first question to be considered is: Do the perceptions of self-awareness among students with disabilities change as a result of instruction in the Possible Selves program with supplemental disability awareness lesson?

Analysis of the data indicates that there was no significant difference between the students included in the control and treatment groups in their perceptions related to their
self-awareness of their disability. This was consistent when analyzing the Student Self Rating Checklist (see Appendix C) and the Student Narrative Measurement (see Appendix F). It is important to note that there was a significant difference for students in both groups from pre-test to post-test, indicating that the perceptions of all students with learning disabilities included in the study improved from the beginning to the end of the study.

There may be several explanations for these findings. First, all students included in the study participated in a Disability Awareness Lesson (see Appendix B). The purpose of this lesson was to instruct students with learning disabilities in critically reviewing and analyzing their own IEP. Students were instructed in critically reading specific information included in their IEP. Using guided practice and open-ended questions, the Learning Strategies Specialists instructed students to review the information included in the current performance abilities reported, the information related to accommodations and modifications, and the goals and benchmarks included in the IEP. Students participated in this lesson during a two-hour instructional period prior to beginning the study, in groups of no more than four students. The purpose of the small groups was to accommodate individual questions that might arise as students reviewed their IEP. Students were guided to look for statements in their IEP that indicated strengths and needs the student possessed academically, socially, and behaviorally. It is possible that this intense, guided instruction was sufficient to improve the self-awareness of students regardless of whether or not they received instruction using the Possible Selves program.

A second possible explanation of the results may be the presentation of instruction at the charter school. The school is established as a predominantly online school for
kindergarten through high school students. Students in the high school complete most of their academic assignments via computer at home. High school students attend the school one day per week for four hours. During this four-hour time frame, students are able to meet with content area teachers to discuss questions and assignments for two hours. The second two-hour session is spent with a Learning Strategies Specialist in direct instruction on strategies and curriculum designed to enhance the academic and social skills for all students. Students are scheduled in these four-hour blocks without regard to identification of a disability. Thus, they receive face-to-face instruction in inclusive classrooms and teachers are expected to engage all students in the instruction and tutoring. Consequently, it is possible that Learning Strategies Specialists have learned to interact with all students in ways that enhance and encourage the empowerment of students. The large percentage of students with disabilities that attend the school may influence the Learning Strategists to use positive and reinforcing language to encourage and support these students regardless of what is being taught. Feedback related to their abilities may be routine practice and therefore, reinforce students' self-awareness skills. This may also mean that students are more aware of their disability and able to internalize the strengths and needs they possess through this academic experience.

A final possible explanation is that the high school students with disabilities are expected to attend and participate in their IEP meetings. Students are encouraged at this school to ask questions and make contributions to the discussion prior to, during, and after the meeting. Therefore, students may develop a strong self-awareness based on strengths and needs discussed at their IEP meetings. It is possible that this active
participation may improve their ability to separate their disability as one characteristic of their self-perception and not the sum total of their self-perception.

Raskind et al. (1999) conducted a survey study with adults with learning disabilities to determine factors of success. One of the factors that was a strong determinant of success was the self-awareness of the individual. One of the questions that emerged from the Raskind et al. (1999) study was whether it was essential or possible to use direct instruction to develop self-awareness or whether it could be developed in the way adults interacted with students. It is possible that the structure and organization of the charter school in which this study was conducted fosters the development of self-awareness in students with learning disabilities.

The second question to be considered is: Do the perceptions of self-advocacy among students with disabilities change as a result of instruction in the Possible Selves program with supplemental disability awareness lesson?

Analysis of the data indicates that there was no significant difference between the students included in the control and treatment groups in their perceptions related to their self-advocacy skills. This was consistent when analyzing the Student Self Rating Checklist (see Appendix C) and the Student Narrative Measurement (see Appendix F). It is important to note that there was a significant difference for students in both groups from pre-test to post-test, indicating that the perceptions of all students with learning disabilities included in the study improved from the beginning to the end of the study.

In addition to the plausible explanations offered for research question one, it is also possible that there was an unintended carry over effect related to the Possible Selves program. To control for teacher effect, both Learning Strategies Specialists taught the
program to treatment group students and both Learning Strategies Specialists taught control group students. This is a common concern related to intervention research. In future intervention studies that involve areas related to self-determination, it may be wise to observe instruction provided to control group students to ensure that carry over from the intervention procedures does not occur.

The third question to be considered is: Do the perceptions of goal setting abilities among students with disabilities change as a result of instruction in the Possible Selves program with supplemental disability awareness lesson?

Analysis of the data indicates that there was no significant difference between the students included in the control and treatment groups in their perceptions related to their goal setting abilities. This was consistent when analyzing the Student Self Rating Checklist (see Appendix C) and the Student Narrative Measurement (see Appendix F). It is important to note that there was a significant difference for students in both groups from pre- to post-test, indicating that the perceptions of all students with learning disabilities included in the study improved from the beginning to the end of the study. As indicated for research questions one and two, instruction in the Disability Awareness Lesson (see Appendix B), the structure and organization of the online learning environment at the charter school, and possible carry-over effect by the Learning Strategies Specialists may account for these results.

The fourth question to be considered is: Do student perceptions differ from teacher perceptions and parent perceptions related to student self-awareness?

Analysis of the data indicates that, at post-test, students’ perceptions of their self-awareness were significantly higher than the perceptions of either their teachers or their
parents. Erickson (1966) discusses the development of adolescents. In his theory, identity vs. role confusion is the stage of adolescence. According to Erickson (1966), adolescents tend to identify more strongly with their peers than adults during this stage as part of their natural self-identification. Young people struggling to identify themselves as distinct from their parents characterize this stage. Thus, Erickson's theory may provide a possible explanation for the differences between adolescent and parent perceptions obtained in this study.

A second possible explanation for the result may be that it is difficult to define specific behaviors of self-awareness. Rather, there is a requisite change of thinking that must occur. Therefore, students may be cognizant that they have changed their self-perceptions and this knowledge has not translated to a level perceivable by others, in this study teachers and parents.

The findings in the current study concur with those of Stone and May (2002). Stone and May found that students with learning disabilities have a tendency to overestimate their actual academic abilities. Compared with parent perceptions, students in this study also rated their self-advocacy skills significantly higher. This tendency towards overestimation may serve to protect self-esteem but simultaneously impede self-advocacy because it does not indicate an honest self-awareness. Without the basic honesty regarding ability and performance, successful participation in general education classes may be hindered.

The findings in the current study differ from those of Carter et al., (2006). Carter et al. found no significant differences between the perceptions of students with learning disabilities and their teachers related to self-determination skills. It is important to note,
however, that the instruments used to measure perceptions in the two studies were different. This may account for the difference in outcomes. Although not directly related to the current study, because of the difference in disability, it is interesting to note that there was a significant difference between the perceptions of students with emotional disturbance and their teachers in the Carter et al. study. The students with emotional disturbance rated their abilities higher than did their teachers.

The fifth question to be considered is: Do student perceptions differ from teacher perceptions and parent perceptions related to student self-advocacy skills?

Analysis of the data indicates that, at post-test, students' perceptions of their self-advocacy skills were significantly higher than the perceptions of either their teachers or their parents. Possible explanations for these results are similar to those previously stated for question four. Additionally, the eight parallel statements related to self-advocacy included rating whether or not the student knows how to ask for help from teachers, participates in class discussions appropriately, makes eye contact with persons to whom he/she is speaking, asks for help appropriately from other students and from teachers, asks questions, works by himself/herself and feels confident about his/her academic abilities. Each of these behaviors, except for the latter, are typical classroom behaviors that students have been expected to use throughout their school experience. It is possible that they perceive they are better at these skills than they actually are. It is also possible that students' ratings reflect a desire to identify themselves with their peers and distinct from their parents (Erikson, 1966). Finally, it may be that teachers and parents cannot truly rate whether or not students know how to ask for help or feel confident about their academic abilities.
The sixth question to be considered is: Do student perceptions differ from teacher perceptions and parent perceptions related to student goal setting ability?

Analysis of the data indicates that, at post-test, students' perceptions of their goal setting skills were significantly higher than the perceptions of either their teachers or their parents. Possible explanations for these results are similar to those previously stated for question four and five. Additionally, the eight parallel statements related to goal setting abilities included rating whether or not students set appropriate goals based on abilities, try to reach those goals, attend IEP meetings and participate in setting goals, believe in a connection between student learning and goals, expect to be successful after graduation, have an action plan, know how to work towards meeting goals, and set goals related to strengths and interests. An area of focus in the Possible Selves instruction was examining self in order to set appropriate goals. An area of focus in the Disability Awareness Lesson was examining goals and benchmarks. With this direct instruction, students may have increased their self-confidence but not sufficiently to demonstrate it for others (i.e., teachers and parents) yet.

The seventh question to be considered is: How well do students perform on lesson assignments within the Possible Selves program with supplemental disability awareness lesson?

Analysis of the data indicates that students included in the treatment group did learn the Possible Selves instruction. There were four critical assignments related to self-awareness, self-advocacy skills, and goal setting abilities. The assignments were: (a) Possible Selves Questionnaire, (b) Possible Selves Tree, (c) Thinking About Possible Selves, and (d) Action Plan (see Appendices N through Q). The combined performance
on these four measures indicate that students learned the program content at a satisfactory level. The *Thinking About Possible Selves* Form was more challenging for the students than the other three assignments. This assignment required the students to set and prioritize goals. Students demonstrated an ability to set and state a minimum of three goals but did not demonstrate an ability to prioritize the goals.

Anecdotal evidence received from the Learning Strategies Specialists and parents supports the finding that students were engaged in the program in positive ways. For example, one parent indicated that her son came home with the *Possible Selves* paperwork and indicated he "really wanted to try" and learn this instructional program. His mother stated that she was very motivated to support her son's decision as it was the first time he had indicated interest in instruction during high school. One of the Learning Strategies Specialists stated that a student improved his achievement in his English course from a failing grade to a B+ during the course of the *Possible Selves* instruction. Per the Specialists' description, the student was hesitant and asked many questions at the beginning of the instruction. As his confidence improved, he became increasingly independent and interacted with peers and adults more positively. The Learning Strategies Specialist believed this new-found confidence was affecting his academic performance in positive ways.

**Study Limitations**

In addition to the limitations noted in Chapter One of this dissertation, the small sample size represents a limitation. This limitation may have influenced the results.
obtained in this study. Larger sample sizes enhance the likelihood that differences between the treatment and control group will be detected, if they exist.

Conclusions

Students with learning disabilities demonstrated an improved perception of self-awareness, self-advocacy skills, and goal setting skills after receiving instruction in a disability awareness lesson and the Possible Selves program. Students with learning disabilities demonstrated an improved perception of self-awareness, self-advocacy skills, and goal setting abilities after receiving a disability awareness lesson and an applied communications program. Students with learning disabilities demonstrated a significantly higher perception of their self-awareness, self-advocacy skills, and goal setting skills than either their teachers’ perceptions or their parents’ perceptions after instruction in a disability awareness lesson and the Possible Selves program. Students with learning disabilities successfully learned the Possible Selves instruction program.

Practical Implications

Students with learning disabilities tend to experience more negative outcomes when transitioning from high school to adult life than students without disabilities. This is true in the areas of employment and postsecondary education (Wagner et al., 2005). Specific skills necessary for navigating adulthood are self-awareness, self-advocacy, and goal setting. Successful adults tend to be aware of their strengths and needs and how these relate to specific tasks and circumstances. Successful adults tend to be able to interact with others positively by asking appropriate and pertinent questions and by asking for
support when it is needed. Successful adults tend to be able to set appropriate goals, plan for acting upon those goals, and adjust those goals when necessary. These are skills that are not currently explicitly taught on a regular basis to students with learning disabilities in public education. It may be that the focus of education is on academic achievement at the expense of developing skills in self-determination.

Because both the treatment and control group students received the Disability Awareness Lesson and because both groups improved their self-perceptions, it appears that students benefit from receiving at least one, two-hour lesson in disability awareness. In this lesson, students examined their IEP and identified characteristics of their learning disability. They learned about their current level of functioning in their academic classes. They also identified specific strengths and weaknesses they have academically, socially, and behaviorally. Students identified accommodations and modifications listed in their IEPs that should be used in their academic classes. They also examined and discussed the goals and objectives stated in their IEPs.

Suggestions for Further Research

Research similar to this study needs to be conducted in traditional public education settings rather than a unique charter school setting. Most school-aged students attend traditional public education settings and therefore, it is important to conduct research in these settings. Conducting research in a traditional public school may also provide a larger sample size, which may lessen the possibility of a Type II error.

A natural extension of this study is to investigate the development of self-awareness, self-advocacy, and goal setting skills and their translation to academic achievement of
students with learning disabilities. There was anecdotal evidence from this study that indicates this may be a worthwhile area to study.

Another natural extension of this study is to conduct follow-up interviews with the students, teachers, and parents involved. This would provide greater clarity related to the variables involved in the perceptions of each respondent.

This study should be replicated using middle school students as the student participants. There may be benefits to providing self-determination instruction prior to high school.

Research should be conducted in which only the treatment group receives instruction in the Disability Awareness Lesson (see Appendix B). The purpose would be to determine whether the key variable related to student improvement in self-awareness, self-advocacy skills, and goal setting ability is the two-hour disability awareness lesson. It would also be interesting to replicate this study without using the Disability Awareness Lesson for the purpose of determining whether successful performance in explicit instructional programs (e.g., Possible Selves, Applied Communication skills) results in improved student perceptions in self-awareness, self-advocacy skills, and goal setting abilities. Finally, it would be interesting to conduct a study in which the treatment group receives the Disability Awareness Lesson and Possible Selves Program and the control group receives instruction in a different self-determination program.

Additional research should be conducted to assess students' abilities to generalize perceptions of self-awareness, self-advocacy skills, and goal setting abilities to behavior. Research should be conducted to directly measure student ability to behave in a self-
aware manner, to advocate for him/herself, and to set and plan for goals rather focusing primarily on perceptions, as in this study.

While students with disabilities are enrolled in school, IEP meetings are an integral part of their academic life. Research should be conducted to compare the perceptions and/or behaviors of students who attend their IEP meeting and a subsequent disability awareness lesson to the perceptions and/or behaviors of students who are instructed in a disability awareness lesson but do not attend their IEP meeting. The purpose of this research would be to distinguish the key variables associated with improved perceptions and/or improved behaviors related to self-awareness, self-advocacy skills, and goal setting abilities.
APPENDIX A

DEMOGRAPHIC QUESTIONS
Demographic Questions

1. Please indicate your gender (choose one).
   Male _____
   Female _____

2. Please indicate your ethnicity (choose as many as apply).
   African American _____
   Hispanic _____
   Asian/Pacific Islander _____
   Native American _____
   Caucasian _____
   Multiracial _____

3. Please indicate your current grade in school (choose one) and age.
   Ninth _____
   Tenth _____
   Eleventh _____
   Twelfth _____
   Age _____
APPENDIX B

DISABILITY AWARENESS LESSON AND STUDENT EVALUATION
Disability Awareness Lesson

Purpose
- To acquaint students with disabilities to their IEP
- To instruct students in reading portions of their IEP to learn their strengths and needs
- To have students complete a Student Evaluation on which they list their strengths, needs and identified accommodations and modifications per their IEP

Materials
- Students’ IEPs, provided by Special Education Teacher of Record and/or Special Education Instruction Facilitator
- Writing paper and pen or pencils for all students present
- Transparencies of blank pages of the IEP used in the Clark County School District
- Overhead projector
- Student Evaluations, one for each student

Preparation for instructor
- Familiarize self with IEP, especially the Present Levels of Functioning, Goals and Benchmarks, and Accommodations/modifications pages
- Obtain all of the materials listed above
- Practice presenting the material

Procedures
- Introduce instructor to students
- Introduce the purpose of the lesson
  - To acquaint students with their IEP
  - To learn what a disability is and is not
  - To learn individual strengths and needs identified on their IEP
  - To learn accommodations and modifications and why they might be useful in academic and life situations
- Display the transparency of the first page of the IEP
  - Direct students’ attention to Disability Category identification
  - Discuss what some of the predominant disabilities are and concomitant characteristics
  - Direct students’ attention to important dates
  - Ask students to list their disability on paper provided (not Student Evaluation)
- Display the transparency of the Present Levels of Functioning page of the IEP
  - Direct students’ attention to the first column – Assessments Used
  - Define and discuss standardized assessments and informal assessments
  - Direct students’ attention to the second column – results of the assessments
  - Discuss particular words and phrases, such as “student is able to”, “student needs instruction in”, “student needs help with”, and how they indicate a strength or need
o Direct students’ attention to the third column – discussion of how results may affect students’ performance and achievement in general education classrooms
o Ask students to list strengths and needs they find on paper provided (not Student Evaluation)

• Display the transparency of the Goals and Benchmarks page of the IEP
  o Direct students’ attention to the goals – how they are written for a specific task and level of achievement
  o Direct students’ attention to the benchmarks – how it is anticipated that they will reach the identified goal
  o Discuss that goals are written to address a specific need or area that requires more instruction and the benchmarks list the steps to achieve that goal

• Display the transparency of the Accommodations/Modifications page of the IEP
  o Discuss the difference between an accommodation and a modification
  o Direct students’ attention to listed accommodations and modifications on their IEP
  o Discuss how the accommodations and modifications apply to their progress in general education classes
  o Discuss ways that accommodations and modifications address a specific need identified on the Present Levels of Functioning page
  o Ask students to review the present levels page and look at the accommodations and modifications listed

• Provide a review of the Disability Awareness Lesson
• Ask students to complete their Student Evaluation using their IEP and the worksheets they completed during class

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Student Evaluation of Disability Awareness Lesson

I have the following learning strengths:

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

I can compensate for my learning needs by:

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Describe your feelings about learning and your abilities:

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

This information is important for me to know because:

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

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APPENDIX C

STUDENT SELF RATING CHECKLIST
Student Self Rating Checklist

Student’s Name ____________________________  Date __________

Instructions: This checklist consists of statements regarding your behavior in classes, your understanding of your abilities, and your ability to make and work towards goals. Read each statement carefully and decide how you think about your performance. Then, rate your behavior using the four point scale listed below. Circle the number next to each statement that best represents your rating of your behavior.

1 – Strongly Disagree          2 – Disagree
3 – Agree                      4 – Strongly Agree

1 2 3 4 I communicate well with teachers.
1 2 3 4 I take responsibility for my behavior.
1 2 3 4 I can define my disability.
1 2 3 4 I know how my disability affects me in school.
1 2 3 4 I can describe my academic strengths and weaknesses to teachers.
1 2 3 4 I can describe my social strengths and weaknesses to teachers.
1 2 3 4 I communicate well with other students.
1 2 3 4 I understand the consequences of my behavior.
1 2 3 4 I know how to ask for help from my teachers.
1 2 3 4 I participate in class discussions appropriately.
1 2 3 4 I make eye contact with the persons to whom I am speaking.
1 2 3 4 I ask for appropriate help from other students.
1 2 3 4 I ask for appropriate help from teachers.
1 2 3 4 I ask questions when I do not understand.
1 2 3 4 I can work by myself when appropriate.
1 2 3 4 I feel confident about my academic abilities.
1 2 3 4 I set appropriate goals based on my abilities.
1 2 3 4 I try to reach my goals.
1 2 3 4 I attend my IEP meetings and help set goals for myself.
1 2 3 4 I believe there is a connection between my learning and my goals.
1 2 3 4 I expect to be successful when I graduate from high school.
1 2 3 4 I have an action plan for pursuing my goals.
1 2 3 4 I know how to work towards meeting my goals.
1 2 3 4 I set goals that relate to my strengths and interests.

APPENDIX D

STUDENT RATING BY TEACHER CHECKLIST
Student Rating by Teacher Checklist

Student’s Name ___________________________ Date _____________

Instructions: This checklist consists of statements regarding your behavior in classes, your understanding of your abilities, and your ability to make and work towards goals. Read each statement carefully and decide how you think about your performance. Then, rate your behavior using the four point scale listed below. Circle the number next to each statement that best represents your rating of your behavior.

1 - Strongly Disagree 2 - Disagree
3 - Agree 4 - Strongly Agree

1 2 3 4 Student communicates well with teachers.
1 2 3 4 Student takes responsibility for his/her behavior.
1 2 3 4 Student is able to define his/her disability.
1 2 3 4 Student knows how his/her disability affects him/her in school.
1 2 3 4 Student can describe his/her academic strengths and weaknesses to teachers.
   Student can describe his/her social strengths and weaknesses to teachers.
1 2 3 4 Student communicates well with other students.
1 2 3 4 Student understands the consequences of his/her behavior.
1 2 3 4 Student knows how to ask for help from teachers.
1 2 3 4 Student participates in class discussions appropriately.
1 2 3 4 Student makes eye contact with persons to whom h/she is speaking.
1 2 3 4 Student asks for appropriate help from other students.
1 2 3 4 Student asks for appropriate help from teachers.
1 2 3 4 Student asks questions when h/she does not understand.
1 2 3 4 Student can work by him/herself when appropriate.
Student appears to feel confident about his/her academic abilities.

Student appears to set appropriate goals based on his/her abilities.

Student tries to reach his/her goals.

Student attends IEP meetings and helps set appropriate goals.

Student appears to believe that there is a connection between his/her learning and his/her goals.

Student expresses confidence about his/her future upon graduation from high school.

Student has an action plan for pursuing his/her goals.

Student appears to know how to work towards meeting his/her goals.

Student sets goals related to his/her strengths and interests.

APPENDIX E

STUDENT RATING BY PARENT CHECKLIST
**Student Rating by Parent Checklist**

Student’s Name ___________________________ Date _____________

Instructions: This checklist consists of statements regarding your behavior in classes, your understanding of your abilities, and your ability to make and work towards goals. Read each statement carefully and decide how you think about your performance. Then, rate your behavior using the four point scale listed below. Circle the number next to each statement that best represents your rating of your behavior.

1 – Strongly Disagree 2 – Disagree
3 – Agree 4 – Strongly Agree

1 2 3 4 Student communicates well with teachers.
1 2 3 4 Student takes responsibility for his/her behavior.
1 2 3 4 Student is able to define his/her disability.
1 2 3 4 Student knows how his/her disability affects him/her in school.
1 2 3 4 Student can describe his/her academic strengths and weaknesses to teachers.
1 2 3 4 Student communicates well with other students.
1 2 3 4 Student understands the consequences of his/her behavior.
1 2 3 4 Student knows how to ask for help from teachers.
1 2 3 4 Student participates in class discussions appropriately.
1 2 3 4 Student makes eye contact with persons to whom he/she is speaking.
1 2 3 4 Student asks for appropriate help from other students.
1 2 3 4 Student asks for appropriate help from teachers.
1 2 3 4 Student asks questions when he/she does not understand.
1 2 3 4 Student can work by him/herself when appropriate.
Student appears to feel confident about his/her academic abilities.

Student appears to set appropriate goals based on his/her abilities.

Student tries to reach his/her goals.

Student attends IEP meetings and helps set appropriate goals.

Student appears to believe that there is a connection between his/her learning and his/her goals.

Student expresses confidence about his/her future upon graduation from high school.

Student has an action plan for pursuing his/her goals.

Student appears to know how to work towards meeting his/her goals.

Student sets goals related to his/her strengths and interests.

APPENDIX F

STUDENT NARRATIVE MEASUREMENT AND RUBRIC
Student Narrative Measurement

Student’s Name ________________________________ Date __________

Instructions: Please read the questions carefully and write your answers on the lines provided.

1. Describe yourself as a person:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2. Describe yourself as a learner:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3. Describe yourself as a worker:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
4. Describe your strengths:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

5. Describe the areas in which you need assistance:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

6. Describe the accommodations that benefit you in your academic classes:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

7. Describe your goals for your future:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

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<table>
<thead>
<tr>
<th>Rubric for Student Narrative Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self as Person</strong></td>
</tr>
<tr>
<td>Discusses disability in positive terms</td>
</tr>
<tr>
<td>Discusses disability in neutral terms</td>
</tr>
<tr>
<td>Discusses disability in negative terms</td>
</tr>
<tr>
<td><strong>Self as Learner</strong></td>
</tr>
<tr>
<td>Discusses disability in positive terms</td>
</tr>
<tr>
<td>Discusses disability in neutral terms</td>
</tr>
<tr>
<td>Discusses disability in negative terms</td>
</tr>
<tr>
<td><strong>Self as Worker</strong></td>
</tr>
<tr>
<td>Discusses disability in positive terms</td>
</tr>
<tr>
<td>Discusses disability in neutral terms</td>
</tr>
<tr>
<td>Discusses disability in negative terms</td>
</tr>
<tr>
<td><strong>Strengths (clarity)</strong></td>
</tr>
<tr>
<td>Discusses at least 2 strengths in specific, clear terms</td>
</tr>
<tr>
<td>Discusses 1 understandable strength</td>
</tr>
<tr>
<td>Discusses strength(s) in general, unclear terms</td>
</tr>
<tr>
<td><strong>Strengths (appropriateness per IEP)</strong></td>
</tr>
<tr>
<td>Discusses more than 1 strength evident in IEP</td>
</tr>
<tr>
<td>Discusses 1 strength that is evident in IEP</td>
</tr>
<tr>
<td>Discusses 1 strength not evident in IEP</td>
</tr>
<tr>
<td><strong>Accommodations (clarity)</strong></td>
</tr>
<tr>
<td>Discusses at least 2 accommodations in specific, clear terms</td>
</tr>
<tr>
<td>Discusses 1 accommodation in specific, clear terms</td>
</tr>
<tr>
<td>Discusses accommodation(s) in general, unclear terms</td>
</tr>
<tr>
<td><strong>Accommodations (appropriateness per IEP)</strong></td>
</tr>
<tr>
<td>Discusses more than 1 accommodation evident in IEP</td>
</tr>
<tr>
<td>Discusses 1 accommodation that is evident in IEP</td>
</tr>
<tr>
<td>Discusses 1 accommodation, not evident in IEP</td>
</tr>
<tr>
<td><strong>Goals (clarity)</strong></td>
</tr>
<tr>
<td>Includes at least 3 focused goals</td>
</tr>
<tr>
<td>Includes 2 focused goal</td>
</tr>
<tr>
<td>Includes 1 focused goal</td>
</tr>
<tr>
<td><strong>Goals (number)</strong></td>
</tr>
<tr>
<td>Discusses at least 3 goals addressing weak area of tree</td>
</tr>
<tr>
<td>Discusses 2 goals addressing weak area of tree</td>
</tr>
<tr>
<td>Discusses 1 goal addressing weak area of tree</td>
</tr>
</tbody>
</table>
APPENDIX G

INFORMED CONSENT OF PARENTS FOR STUDENTS

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INFORMED CONSENT
OF PARENTS FOR STUDENTS
Department of Special Education

TITLE OF STUDY: Effects of Possible Selves Instruction on Self-Determination of Students with Learning Disabilities

INVESTIGATOR(S): Susan P. Miller, Ph.D.
Jennifer L. Stringfellow, M.Ed.

CONTACT PHONE NUMBER: 895-3205

Purpose of the Study
You are invited to allow your child to participate in a research study. The purpose of this study is to investigate the effects of the Possible Selves program (Hock, Schumaker, & Deshler, 2003) on perceptions related to self-awareness, self-advocacy, and goal-setting among adolescents with disabilities and their teachers. Student performance within the program also will be investigated.

Participants
Your child is being asked to participate in the study because he/she had an identified disability and is a student at Odyssey Charter School.

Procedures
If you volunteer to allow your child to participate in this study, your child will be asked to do the following: attend a Disability Awareness Lesson for two hours, attend your regularly scheduled class at Odyssey Charter School, complete a questionnaire that asks for demographic information, complete all of the required forms and pre- and post-test measures.

Benefits of Participation
There may be direct benefits to your child as a participant in this study. We hope to learn the effects of direct instruction in the Possible Selves program on the ability of students with disabilities to be self-aware and learn self-advocacy skills.

Risks of Participation
There are risks involved in all research studies. This study may include only minimal risks. Some of the questions asked on the demographic questionnaire and during the Disability Awareness Lesson may be uncomfortable.

Cost/Compensation
There will not be financial cost to you for your child to participate in this study. The study will take two hours of your child’s time each time he/she attends the regularly scheduled class at Odyssey Charter School during the second quarter of the school year.

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In addition, your child will be asked to attend school one day for an additional two hour session to learn about his/her disability. You will not be compensated for your child’s time. The University of Nevada, Las Vegas may not provide compensation or free medical care for an unanticipated injury sustained as a result of participating in this research study.

**Contact Information**
If you have any questions or concerns about the study, you may contact Dr. Susan Miller at (702) 895-1108 or Jennifer L. Stringfellow at (702) 895-2915. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office for the Protection of Research Subjects at 702-895-2794.

**Voluntary Participation**
Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with the university. You are encouraged to ask questions about this study at the beginning or any time during the research study.

**Confidentiality**
All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you or your student to this study. All records will be stored in a locked facility at UNLV for at least 3 years after completion of the study. After the storage time the information gathered will be shredded and destroyed.

**Participant Consent:**
I have read the above information and agree to participate in this study. I am the parent of a student who is not yet 18 years of age. A copy of this form has been given to me.

__________________________  ______________________
Signature of Parent of Participant  Date

__________________________
Participant Name (Please Print)

__________________________
Name of Parent of Participant (Please Print)

*Participant Note: Please do not sign this document if the Approval Stamp is missing or is expired.*

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APPENDIX H

INFORMED CONSENT OF LEARNING STRATEGIES SPECIALISTS
TITLE OF STUDY: Effects of Possible Selves Instruction on Self-Determination of Students with Learning Disabilities

INVESTIGATOR(S): Susan P. Miller, Ph.D.
Jennifer L. Stringfellow, M.Ed.

CONTACT PHONE NUMBER: 895-3205

Purpose of the Study
You are invited to participate in a research study. The purpose of this study is to investigate the effects of the Possible Selves program (Hock, Schumaker, & Deshler, 2003) on perceptions related to self-awareness, self-advocacy, and goal-setting among adolescents with disabilities and their teachers. Student performance within the program also will be investigated.

Participants
You are being asked to participate in the study because you are a Learning Strategies Specialist working at Odyssey Charter School.

Procedures
If you volunteer to participate in this study, you will be asked to do the following: participate in a three-hour training session. The session consists of learning the content and procedures for the Disability Awareness Lesson, the Possible Selves program, and the proper distribution and collection of the instrumentation used in this study. Upon completion of the training session, Learning Strategies Specialists will instruct students regularly scheduled in their class in the Possible Selves program, using the forms and instrumentation included in the program and this study.

Benefits of Participation
There may be direct benefits to you as a participant in this study. We hope to learn the effects of instruction in the Possible Selves program on the self-awareness and self-advocacy of students with disabilities.

Risks of Participation
There are risks involved in all research studies. This study may include only minimal risks. Some of the questions asked regarding demographics and on the Student Rating by Teacher Checklist may be uncomfortable.
Cost /Compensation
There will not be financial cost to you to participate in this study. The study will take three hours in a training session initially and then two hours daily during your typically scheduled teaching times. You will not be compensated for your time. The University of Nevada, Las Vegas may not provide compensation or free medical care for an unanticipated injury sustained as a result of participating in this research study.

Contact Information
If you have any questions or concerns about the study, you may contact Dr. Susan Miller at (702) 895-1108 or Jennifer L. Stringfellow at (702) 895-2915. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office for the Protection of Research Subjects at 702-895-2794.

Voluntary Participation
Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with the university. You are encouraged to ask questions about this study at the beginning or any time during the research study.

Confidentiality
All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for at least 3 years after completion of the study. After the storage time the information gathered will be shredded and destroyed.

Participant Consent:
I have read the above information and agree to participate in this study. I am at least 18 years of age. A copy of this form has been given to me.

________________________________________  __________________________
Signature of Participant                             Date

______________________________________________
Participant Name (Please Print)

Participant Note: Please do not sign this document if the Approval Stamp is missing or is expired.
APPENDIX I

INFORMED CONSENT OF PARENTS
INFORMED CONSENT
FOR PARENTS
Department of Special Education

TITLE OF STUDY: Effects of Possible Selves Instruction on Self-Determination of Students with Learning Disabilities
INVESTIGATOR(S): Susan P. Miller, Ph.D.
Jennifer L. Stringfellow

CONTACT PHONE NUMBER: (702) 895-1108

Purpose of the Study
You are invited to participate in a research study. The purpose of this study is to investigate the effects of the Possible Selves program (Hock, Schumaker, & Deshler, 2003) on perceptions related to self-awareness, self-advocacy, and goal setting among adolescents with disabilities, their teachers, and their parents. Student performance within the program will also be investigated.

Participants
You are being asked to participate in the study because your child has an identified disability and is a student at Odyssey Charter School.

Procedures
If you volunteer to participate in this study, you will be asked to do the following: complete a Student Rating by Parent Checklist as a pre- and post-test.

Benefits of Participation
There may not be direct benefits to you as a participant in this study. However, we hope to learn the effects of direct instruction in the Possible Selves program (Hock et al., 2003) with a supplemental disability awareness lesson on the self-awareness, self-advocacy, and goal setting abilities of students with disabilities.

Risks of Participation
There are risks involved in all research studies. This study may include only minimal risks. Some of the questions asked on the demographic questionnaire, during the Disability Awareness Lesson, and on the Student Self Rating Checklist may be uncomfortable.

Cost /Compensation
There will not be financial cost to you to participate in this study. The study will take approximately one hour to complete a Student Rating by Parent Checklist at the beginning and at the end of the study. You will not be compensated for your time. The

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University of Nevada, Las Vegas may not provide compensation or free medical care for
an unanticipated injury sustained as a result of participating in this research study.

Contact Information
If you have any questions or concerns about the study, you may contact Dr. Susan Miller
at (702) 895-1108 or Jennifer L. Stringfellow at (702) 895-2915. For questions regarding
the rights of research subjects, any complaints or comments regarding the manner in
which the study is being conducted you may contact the UNLV Office for the
Protection of Research Subjects at 702-895-2794.

Voluntary Participation
Your participation in this study is voluntary. You may refuse to participate in this study
or in any part of this study. You may withdraw at any time without prejudice to your
relations with the university. You are encouraged to ask questions about this study at the
beginning or any time during the research study.

Confidentiality
All information gathered in this study will be kept completely confidential. No reference
will be made in written or oral materials that could link you to this study. All records
will be stored in a locked facility at UNLV for at least 3 years after completion of the
study. After the storage time the information gathered will be destroyed.

Participant Consent:
I have read the above information and agree to participate in this study. I am at least 18
years of age. A copy of this form has been given to me.

______________________________  __________________________
Signature of Participant  Date

______________________________
Participant Name (Please Print)

Participant Note: Please do not sign this document if the Approval Stamp is missing or
is expired.
INFORMED CONSENT
FOR STUDENTS
Department of Special Education

TITLE OF STUDY: Effects of Possible Selves Instruction on Self-Determination of Students with Learning Disabilities

INVESTIGATOR(S): Susan P. Miller, Ph.D.
Jennifer L. Stringfellow

CONTACT PHONE NUMBER: (702) 895-1108

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Purpose of the Study
You are invited to participate in a research study. The purpose of this study is to investigate the effects of the Possible Selves program (Hock, Schumaker, & Deshler, 2003) on perceptions related to self-awareness, self-advocacy, and goal setting among adolescents with disabilities, their teachers, and their parents. Student performance within the program will also be investigated.

Participants
You are being asked to participate in the study because you are a student at Odyssey Charter School with an identified disability and you are 18 years of age.

Procedures
If you volunteer to participate in this study, you will be asked to do the following: participate in a two-hour Disability Awareness Lesson, attend regularly scheduled classes; and complete all of the required pre-test and post-test measures and lesson assignments.

Benefits of Participation
There may not be direct benefits to you as a participant in this study. However, we hope to learn the effects of direct instruction in the Possible Selves program (Hock et al., 2003) with a supplemental disability awareness lesson on the self-awareness, self-advocacy, and goal setting abilities of students with disabilities.

Risks of Participation
There are risks involved in all research studies. This study may include only minimal risks. Some of the questions asked on the demographic questionnaire, during the Disability Awareness Lesson, and on the Student Self Rating Checklist may be uncomfortable.
**Cost/Compensation**

There *will not* be financial cost to you to participate in this study. The study will take ten weeks of instructional time. You will not be compensated for your time. The University of Nevada, Las Vegas may not provide compensation or free medical care for an unanticipated injury sustained as a result of participating in this research study.

**Contact Information**

If you have any questions or concerns about the study, you may contact Dr. Susan Miller at (702) 895-1108 or Jennifer L. Stringfellow at (702) 895-2915. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office for the Protection of Research Subjects at 702-895-2794.

**Voluntary Participation**

Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with the university. You are encouraged to ask questions about this study at the beginning or any time during the research study.

**Confidentiality**

All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for at least 3 years after completion of the study. After the storage time the information gathered will be destroyed.

**Participant Consent:**

I have read the above information and agree to participate in this study. I am at least 18 years of age. A copy of this form has been given to me.

______________________________  __________________
Signature of Participant                Date

______________________________
Participant Name (Please Print)

*Participant Note: Please do not sign this document if the Approval Stamp is missing or is expired.*
APPENDIX K

STUDENT ASSENT
STUDENT ASSENT TO PARTICIPATE IN RESEARCH

Effects of Possible Selves Instruction on Self-Determination of Students with Learning Disabilities

1. My name is Jennifer L. Stringfellow.

2. We are asking you to take part in a research study because we are trying to learn more about the ability of high school students with disabilities to learn to be self-aware, to self-advocate and to set realistic goals for their future.

3. If you agree to be in this study, you will be asked to attend Odyssey Charter School one day for an extra two hours to participate in a Disability Awareness Lesson. You will then be asked to participate in instruction during your regularly scheduled time with a Learning Strategies Specialist.

4. Answering some of the demographic questions, questions during the Disability Awareness Lesson, and/or on the Student Self Rating Checklist may be uncomfortable for you to answer.

5. You may learn to be self-aware including your disability, how to advocate for yourself with adults, and how to set and act on realistic goals for yourself.

6. Please talk this over with your parents before you decide whether or not to participate. We will also ask your parents to give their permission for you to take part in this study. But even if your parents say "yes" you can still decide not to do this.

7. If you don’t want to be in this study, you don’t have to participate. Remember, being in this study is up to you and no one will be upset if you don’t want to participate or even if you change your mind later and want to stop.

8. You can ask any questions that you have about the study. If you have a question later that you didn’t think of now, you can call me at 895-2915 or ask me next time. You may call me at any time to ask questions.

9. Signing your name at the bottom means that you agree to be in this study. You and your parents will be given a copy of this form after you have signed it.

__________________________________________________________________________  __________
Print your name Date

__________________________________________________________________________
Sign your name
APPENDIX L

PERMISSION TO USE POSSIBLE SELVES
Permission to Use Copyrighted Material

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I, ________________________________ holder of
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Plan, p. 60; Possible Selves Tree, p. 96; Possible Selves Questionnaire, pp. 67-74; and
Thinking About Possible Selves, pp. 83-84), authored by Michael F. Hock, Jean B.
Schumaker, and Donald D. Deshler and originally published in 2003 hereby
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Signature ________________________________ Date ________________

Michael F. Hock

Name (typed) ________________________________ Title ________________________________

Representing ________________________________

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__________________________
Signature

__________________________
Date

Jean B. Schumaker

__________________________
Name (typed) Title

Representing

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____________________________  ____________________
Signature                      Date

Donald D. Deshler

Name (typed)  Title

Representing

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APPENDIX M

PROCEDURAL VALIDITY CHECKLIST
# Procedural Validity Checklist

The following components were addressed during the instruction:

<table>
<thead>
<tr>
<th>Component</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher follows the lesson script.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher uses appropriate pacing for instruction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher uses the lesson materials appropriately during instruction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher reviews lesson content at end of instruction.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unusual circumstances surrounding lesson (e.g., fire drill, student acting out, etc.):

Other comments:
APPENDIX N

POSSIBLE SELVES QUESTIONNAIRE FORM AND RUBRIC
Possible Selves Questionnaire

Section 1: Individual Strength

1. What one thing are you really good at doing?

________________________________________________________________________

Use words or phrases that describe you in this area.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

2. What are some of the things you hope to achieve in this area?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Section 1: Individual Strength (continued)

3. What are some of the things you expect to achieve in this area?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

4. What are some of your fears about yourself in this area?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Section 2: Learner

1. Use words or phrases to describe yourself as a learner.

2. What are some of the things you hope to achieve as a learner?
Section 2: Learner (continued)

3. What are some of the things you expect to achieve as a learner?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

4. What are some of your fears about yourself as a learner?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
1. Use words or phrases to describe yourself as a person.

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

2. What are some of the things you hope to achieve as a person?

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
3. What are some of the things you expect to achieve as a person?

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

4. What are some of your fears related to yourself as a person?

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________
Section 4: Worker

1. Use words or phrases to describe yourself as a worker.

   (If you have a job outside your home, describe what you’re like while you do that job. If you don’t have a job outside your home, think about work you do for your parents or around the house, and describe how you do those jobs.)

   ____________________________________________________________

   ____________________________________________________________

   ____________________________________________________________

   ____________________________________________________________

2. What are some of the things you hope to achieve as a worker?

   ____________________________________________________________

   ____________________________________________________________

   ____________________________________________________________

   ____________________________________________________________

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Section 4: Worker (continued)

3. What are some of the things you expect to achieve as a worker?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

4. What are some of your fears about yourself as a worker?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
______________________________________________________________________
<table>
<thead>
<tr>
<th>Description of Self</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description is detailed, including statement of disability</td>
<td>Description is detailed with no specific mention of disability</td>
<td>Description lacks detail with no specific mention of disability</td>
<td>Description lacks detail; provides alternate explanations for classroom issues</td>
<td>Description is unclear or nonexistent and no mention of disability</td>
<td></td>
</tr>
<tr>
<td>Statement of Hopes</td>
<td>Lists at least 4 hopes (one for each of the categories on the questionnaire)</td>
<td>Lists at least 3 hopes in more than one of the categories</td>
<td>Lists at least 2 hopes in more than one of the categories</td>
<td>Lists at least 1 hope in one of the categories</td>
<td>Hope is listed but not clearly stated as one of the categories</td>
</tr>
<tr>
<td>Statement of Expectations</td>
<td>Lists at least 4 expectations (one for each of the categories on the questionnaire)</td>
<td>Lists at least 3 expectations in more than one of the categories</td>
<td>Lists at least 2 expectations in more than one of the categories</td>
<td>Lists at least 1 expectation in one of the categories</td>
<td>Expectation is listed but not clearly stated as one of the categories</td>
</tr>
<tr>
<td>Statement of Fears</td>
<td>Lists at least 4 fears (one for each of the categories on the questionnaire)</td>
<td>Lists at least 3 fears in more than one of the categories</td>
<td>Lists at least 2 fears in more than one of the categories</td>
<td>Lists at least 1 fear in one of the categories</td>
<td>Fear is listed but not clearly stated as one of the categories</td>
</tr>
</tbody>
</table>
Possible Selves Questionnaire and Possible Selves Tree and Rubric

<table>
<thead>
<tr>
<th>Description of Self</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
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</tbody>
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<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
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<td>Lists at least 1 hope in one of the categories</td>
<td>Hope is listed but not clearly stated as one of the categories</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement of Expectations</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
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<td>Lists at least 3 expectations in more than one of the categories</td>
<td>Lists at least 2 expectations in more than one of the categories</td>
<td>Lists at least 1 expectation in one of the categories</td>
<td>Expectation is listed but not clearly stated as one of the categories</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement of Fears</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
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<td>Lists at least 3 fears in more than one of the categories</td>
<td>Lists at least 2 fears in more than one of the categories</td>
<td>Lists at least 1 fear in one of the categories</td>
<td>Fear is listed but not clearly stated as one of the categories</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX P

THINKING ABOUT POSSIBLE SELVES FORM AND RUBRIC
LOOK AT YOUR POSSIBLE SELVES TREE.

1. Which tree limb has the most branches?

2. Which tree limb has the most “hopeful” or “positive” words?

3. Which tree limb has the fewest branches?

4. Which tree limb has the fewest positive words?

5. Which tree limb(s) need(s) to be strengthened the most?
6. The main hope I have for my life in this area is to:


7. List three immediate or short-term goals that will help you attain this hope.

<table>
<thead>
<tr>
<th>Priority Ranking</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
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</tr>
</tbody>
</table>
Rubric for *Thinking About Possible Selves* form

<table>
<thead>
<tr>
<th>Questions</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the student write three goals?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do the goals pertain to the areas that need strengthening according to the Possible Selves Questionnaire and Possible Selves Tree?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the student prioritize or rank the goals?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX Q

ACTION PLAN FORM AND RUBRIC
**Action Plan**

One of my hopes is to: ____________________________

______________________________________________

A goal that will help me attain this hope is to: ____________________________

______________________________________________

The action steps I need to take to reach this goal are:  

<table>
<thead>
<tr>
<th>Action Steps</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Rubric for *Action Plan* form

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the student identify one hope?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the student write a goal that specifically pertained to that hope?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the student identify a minimum of three action steps pertaining to the goal?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action Step 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action Step 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action Step 3</td>
<td></td>
<td></td>
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</tbody>
</table>
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Dissertation Title: Effects of Possible Selves Instruction on Self-Determination Skills of Students with Learning Disabilities

Dissertation Examination Committee:
Chairperson, Dr. Susan P. Miller, Ph.D.
Committee Member, Dr. Tom Pierce, Ph.D.
Committee Member, Dr. Kyle Higgins, Ph.D.
Graduate Faculty Representative, Dr. Scott Loe, Ph.D.

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