

**Examining the Effects of Teaching Self-Determination Skills to High School Youth with Disabilities**

by

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## Abstract

An extensive review of the literature has been conducted in the area of self-determination for youth with disabilities who are preparing for their transitions from school to post school activities. Self-determination is presented as a best practice for transition education and current instructional practices used to teach such skills are described. Evidence is provided supporting the benefits of being self-determined for students while they are in school and as they exit from school. Additionally, the component of peer mentoring is examined as a possible strategy for assisting youth in developing self-determination skills. Specifically, benefits of such programs and structural components necessary to facilitate peer mentoring were identified. Teaching self-determination skills to youth with disabilities requires the implementation of lessons into classroom activities. This study used lessons from *Whose Future is it Anyway?*, a Student-Directed Transition Planning Process (Wehmeyer et al., 2004), to teach students how to make decisions and set goals, skills identified with being self-determined. Forty-four high school students with mild mental retardation, specific learning disabilities, other health impairments, or visual impairments (21 girls, 23 boys, average age 16.77 years, 59.1 African-American, 38.6% Caucasian, and 2.3% Hispanic) from three southeast Alabama high schools participated in this study. Students were assigned to one of three groups: (Group 1) instruction in self-determination, (Group 2) instruction in self-determination and participation in a pre-established school peer mentoring program, and (Group 3) no instruction in self-determination nor participation in peer mentoring. Twelve lessons were taught, one each day, for approximately 45

minutes in the special education classroom. A pretest/posttest design was used for each of the three groups to determine change in knowledge and skills of self-determination after the intervention. The results of this study suggest that students with mild disabilities can benefit from instruction in self-determination. There was no difference between students who participated in peer mentoring.

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*We can only be said to be alive in those moments when our hearts are conscious of our treasures. — Thornton Wilder*

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## CHAPTER I. INTRODUCTION

Individuals with disabilities have experienced great improvements in the availability and quality of services they have received, due in part to advocacy movements and legislative mandates of recent times. Individuals with disabilities have played crucial roles in gaining their own rights and services (Wehmeyer, Bersani, & Gagne, 2000) and it is through instruction in self-determination that future generations of individuals with disabilities will have the tools needed to maintain and continue to advocate for themselves for improved rights and services (Campbell-Whatley, 2006; Wehmeyer & Kelchner, 1996; Zhang, 2005). As research of post school outcomes for youth with disabilities begins to expand, valuable information is being discovered and substantiated that can lead to improved services for these individuals. Connecting those empirically-based practices to classroom instruction is necessary to ensure that the best possible services continue to be provided to those with disabilities.

As humans begin to age, we begin to identify our life goals, usually including occupations, living arrangements, social activities, family plans, and other dreams and goals. For individuals with disabilities, this planning process is critical and should be fostered through the services they receive. The Individuals with Disabilities Education Improvement Act (IDEIA, 2004) has specifically defined a time period when such goals must be addressed. The transition period begins no later than age 16 and requires that special education services must address post school outcome goals.

Transition services were first mandated in 1990, in the Individuals with Disabilities Education Act (IDEA) for youth 16 and older. These mandates required that students' post school goals address the areas of post secondary education, independent living, and community participation. In addition to stating such goals, "coordinated services" to be provided by multiple agencies were to be identified.

During the transition planning process, it is necessary and defined by IDEA that students' needs, interests, preferences, and strengths be taken into consideration. A documented strategy that assists students when participating in the transition planning process is the development of self-determination skills (Wehmeyer, Palmer, Soukup, Garner & Lawrence, 2007). A most common definition presented by Wehmeyer (1996a) describes self-determination as "acting as the primary causal agent in one's life and making choices and decisions regarding one's quality of life free from undue external influence or interference" (p. 24).

Self-determination instruction is an example of an empirically-based strategy that should be taught to individuals with disabilities. The development of self-determination skills creates many positive benefits for students. Teaching self-determination skills improves the lives of individuals with disabilities and therefore, teachers have a responsibility for teaching those skills (Smith, Beyer, Polloway, Smith, & Patton, 2008). Some benefits include improved academic performance, better employment outcomes, ability to set goals, and development of disability awareness (Martin, VanDycke, D'Ottavio, & Nickerson, 2007). Students who are self-determined have better control of their lives, make their own decisions, and actively participate in their educational planning (Campbell-Whatley, 2006; Wehmeyer & Kelchner, 1996; Zhang, 2005).

In addition to using teacher instruction for self-determination, the implementation of a peer mentor program may be beneficial for improving level of self-determination for youth with disabilities. Peer relationships provide students with disabilities the emotional and social support they may need throughout their education and post school life (Whelley, Radtke, Burgstahler, & Christ, 2003). Matching students with mentors who have similar characteristics may help them recognize that there are other individuals who share common experiences (Kram & Isabella, 1985; Solomon, 2004; Veith et al., 2006). A peer mentor may also improve the self-determination of youth by demonstrating how someone with similar characteristics may have handled a particular situation.

#### Purpose of the Study

The purpose of this study was to increase the self-determination of high school students with mild disabilities by evaluating three different conditions. Past research has indicated that specific instruction in self-determination skills improves students' abilities to act self-determined (Sowers & Powers, 1995; Wehmeyer & Schwartz, 1997). Therefore, this study compared groups of students who received instruction in self-determination to those who did not receive any instruction. The study also determined the additional benefits of using peer mentors with similar characteristics to increase self-determination in a high school setting. The three conditions were as follows:

(Group 1) Participants receive instruction in self-determination.

(Group 2) Participants receive instruction in self-determination and also participate in an already established peer mentoring program.

(Group 3) Participants receive no instruction in self-determination nor participate in peer mentoring.

Instruction for this intervention was provided by two certified special education teachers pursuing their doctorate degrees, one of whom is also the principal investigator of this study.

### Research Questions

In an effort to examine the specific effects of a self-determination intervention the following questions were investigated.

1. Is there a difference in decision-making and goal-setting knowledge and skills between students who receive self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum, students who participate in peer mentor activities and receive self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum, and students who do not receive self-determination instruction (Group 1 x Group 2 x Group 3)?
2. Do students who receive self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum have greater decision-making and goal-setting knowledge and skills than those students who do not receive instruction (Group 1 x Group 3)?
3. Do students who participate in peer mentor activities receive and receive self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum have greater decision-making and goal-setting knowledge and skills than those students who receive no self-determination instruction (Group 2 x Group 3)?
4. Do students who participate in peer mentor activities and receive self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* Curriculum have greater decision-making and goal-setting knowledge and skills than those students who receive only self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum (Group 2 x Group 1)?

5. Do students who have specific learning disabilities have greater decision-making and goal-setting knowledge and skills after participating in self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum (Group 1, Specific Learning Disability)?

### Significance of the Study

Teaching self-determination skills addresses the requirements of IDEIA that require the transition planning process be based upon students' needs, interests, preferences, and strengths. Research indicates that it is through instruction in self-determination that students with disabilities begin to identify for themselves their needs, interests, preferences, and strengths (Kohler & Field, 2003). However, there are many reasons why self-determination is not a primary component of all special education programs. Some possible barriers to self-determination instruction include the lack of preparation in teacher training programs for teaching such skills, the underutilization of instructional materials and resources, and the consumption of time placed solely on academics (Konrad, Fowler, Walker, Test, & Wood, 2007; Thoma, Pannozzo, Fritton, & Bartholomew, 2008; Uphold, Walker, & Test, 2007; Wehmeyer, Agran, & Hughes, 2000).

In addition to the legal indications for the need to develop students' self-determination, it is the ethical responsibility of those who work with individuals with disabilities to acknowledge their right to make decisions and have control over their lives (Smith et al., 2008). Some professionals do not believe that their students can be in control of their transition planning process (Martin et al., 2007) and others see little relevance in teaching self-determination skills to those with more significant disabilities (Wehmeyer et al., 2000). Working with individuals with disabilities and determining the extent to which self-determination skills are fostered,



requires professionals to consider the question “Is it fair to not teach and help students to become self-determined?” (Smith et al., 2008, p. 32).

This study provided those who work with individuals with disabilities information on how best to teach self-determination skills in the context of the school environment. Though self-determination has been identified as a best practice for students with disabilities, classroom practices are still not a reflection of the current research findings (Wehmeyer, Hughes, Agran, Garner, & Yeager, 2003; Uphold et al., 2007). Examining the effectiveness of self-determination interventions to teach self-determination skills may provide insight into strategies and materials that can be incorporated into teacher training programs.

In an effort to address the issues of time and preparation needed to teach self-determination skills, typically taught through teacher-directed activities, the use of peer mentors may provide teachers with an additional support strategy that reduces the time needed to teach self-determination skills. Students may increase their self-determination skills by interacting and developing a relationship with someone who has had similar experiences and who demonstrates self-determination skills. Finally, it is nearly impossible to change the belief system of individuals who work with those who have disabilities and society for that matter, but it is hoped that through repeated efforts to demonstrate the importance of teaching such skills that programs for youth with disabilities will expand to include instruction in self-determination.

## CHAPTER II. REVIEW OF LITERATURE

For youth with disabilities, transitioning from high school to adulthood provides many challenges that require students to be properly prepared to take control of their lives. Teaching students self-determination skills prepares them to actively participate in planning their future goals and achieving them (Field & Hoffman, 2007). Additionally, providing students with experiences and opportunities to interact with individuals who have similar disabilities and who demonstrate self-determined behavior may provide a sense of inspiration and motivation for youth as they prepare for their transition from high school to post school.

The review of the literature examined self-determination as a best practice in education for individuals with disabilities, specifically during their transition years, and explored the benefits of peer mentoring to aid in developing these skills. Self-determination and mentoring provide youth with many positive outcomes related to school and post school, and therefore, should be considered dually as a possible intervention for improving the lives of youth with disabilities. Adolescent development is presented as a foundation for exploring self-determination and mentoring for youth. The history and definitions of self-determination and mentoring are provided, followed by a discussion of the need for research and implementation of programs in these areas. The benefits of self-determination and mentoring are addressed as well as a review of current implementation strategies.

## Adolescent Development

Of all the milestones people encounter as they age, perhaps the most difficult is adolescence. Besides the physical changes that are occurring at this age, there are a variety of other “rights of passages” to be considered. For example, this age is usually when youth are experiencing curfews for the first time, being grounded as a form of punishment, obtaining a driver’s permit, and assuming more household responsibilities, such as laundry and cooking. Adolescence is often defined as the time frame between ages of 10 years and 20 years, beginning first with early adolescence (10–14), middle adolescence (14–17), and ending with late adolescence (18–20) (Lichtenstein, 1998). During the developmental process into adolescence, students also encounter changes in family and peer relationships, puberty, and social and educational environments (Wigfield, Lutz, & Wagner, 2005). These changes are related to academic achievement, self-concept, and motivation (Wigfield et al.) and, therefore, require substantial efforts to make the shift to adolescence as smooth as possible.

Professionals working with youth during this time must find a critical balance between support and guidance. That is, students should be allowed to self-discover during this time without constant supervision, but because they are at such a turning point in their lives, guidance is needed as well. During this change, students begin to increase their ability to think abstractly and at a higher level, which suggests that this is the time period in which future plans begin to emerge as a topic of discussion (Wigfield et al., 2005). Therefore, in an effort to prepare students to actively participate in planning for their futures, their emergence into adolescence should be recognized and supported through examination of factors associated with such changes.

Two factors that play an important role in the transformation to adolescence are peer relationships and independence (Lichtenstein, 1998). Developing peer relationships are

important for all youth, especially those with disabilities. Peer relationships are specifically related to successful community participation after school (Chadsey & Sheldon, 1998). Similarly, the “pursuit of independence” for youth with disabilities is necessary to predict successful post school outcomes (Lichtenstein) such as independent living, working, and developing and maintaining relationships. For teachers especially, it is necessary to be aware of these factors and how they contribute to the successes of students while they are in school and once they leave so that instruction in the classroom can incorporate specific strategies to address the development of relationships and independence.

As students begin to define who they are, often measured by self-concept and self-esteem, they often compare themselves with their peers (Tarrant, MacKenzie, & Hewitt, 2006). Youth look for common characteristics among other individuals (Wigfield et al., 2005) and accept those peers most similar and reject those with whom they do not relate (Tarrant et al.). Shared traits may include participation in athletics or other extracurricular activities or common interests in subject areas (Wigfield et al.). The important issue to note is that students prefer to befriend those individuals most similar to them.

Often times the discussion of peer groups during adolescence triggers the thought of peer pressure and engagement in inappropriate behaviors (Wigfield et al., 2005). Students may occasionally misinterpret friendships and discover they are changing themselves to “fit in” with other students. However, there are more positive benefits for students with peer relationships during adolescence than there are negative experiences. For example, Tarrant et al. (2006) reported that students who identify with a group of peers during adolescence indicated higher levels of self-esteem than those students who did not identify with friends. Peer relationships

also deter emotions that tend to be associated with adolescence such as loneliness, depression, aggression, and poor self-concept (Tarrant et al.).

In addition to developing friendships, youth also attempt to gain independence during adolescence. The challenge with independence not only exists for youth, but also for those responsible for their well-being. Parents, families, teachers, and other adult figures struggle with the acceptance of allowing teens to become independent, usually because of the fear of mistakes that may accompany that freedom. However, allowing adolescents to gain some control in their lives will ultimately improve their future outcomes. In fact, youth who control their own experiences (i.e., making decisions for themselves) have improved emotional and mental well-being (Browning, 1997). Likewise, other benefits associated with control and choice include improved learning skills, classroom behavior, and independence (Browning, 1997).

The idea of assisting students in becoming autonomous individuals, that is, acting independently to control one's own life (Wehmeyer, Agran & Hughes, 2000), has gained much attention in the education of students with disabilities. The term 'self-determination', to be discussed further, has been identified as a best practice in teaching students to be in control of their own lives. However, strategies for developing their peer relationships are not as structured (Kram & Isabella, 1985) as teaching skills that lead to independence.

Interestingly, the concept of peer mentoring, also to be discussed further, matches individuals with similar characteristics which is how teens typically choose their peer relationships. Thus, the idea of matching peers together based on common characteristics and experiences (Veith, Sherman, Pellino, & Yasui, 2006) may be a technique for improving peer relationships. Providing youth with opportunities for peer interactions as well as instruction in

the area of self-determination may contribute to those individuals' independence as they transition from school to post school activities.

### Special Education and Transition

Individuals with disabilities have experienced improvements overtime in accessing their basic human rights and privileges. Beginning with access to public education in 1975, subsequent reauthorizations of the Education of All Handicapped Children Act, currently known as the Individuals with Disabilities Education Improvement Act (IDEIA), have continually addressed areas in which students with disabilities experience poor outcomes. Specifically, in 1990, the Individuals with Disabilities Education Act (IDEA) mandated transition services for the first time for youth 16 and older. The development of specific transition services, to assist students with the movement from school to post school, was in direct response to poor post-school outcomes in such areas as employment, independent living, postsecondary education achievement, and community involvement (Kohler & Field, 2003).

The original focus of transition, as set forth by the Office of Special Education and Rehabilitative Services (OSERS) in the Bridges Model, was to assist students in finding employment. However, leaders in the field, including Andrew Halpern (1993), expanded the focus of transition to address other life activities. In 1993, Halpern identified "quality of life" as a measure for successful outcomes for youth and adults with disabilities. The three basic domains of quality of life are defined as (1) physical and material well-being, (2) performance of a variety of adult roles, and (3) personal fulfillment. In addition to considering post school success in employment, quality of life components encompass such factors as peer relationships and independence (Halpern).

Shifting attention from employment to other indicators of successful transitions, including post secondary education, independent living, and community participation, required a more in-depth view into individual students and their own ideas for the future. As stated in IDEA (1990), transition services should be based on the “individual student’s needs, taking into account the student’s interests and preferences.” Up until that point, students with disabilities’ interests and preferences were rarely considered in educational planning and transition goals (Johnson, 1999).

Besides upholding the human right to control one’s own life, research suggests that when students are involved in setting goals they are more likely to achieve them (Kohler & Field, 2003). However, the recognition that students lacked the opportunities and skills to manage their own lives, led to an advocacy movement in which individuals with disabilities were no longer silent as they learned to identify their own needs.

In the 1990s, there was a key focus added to the transition movement. Self-determination began to rise to the forefront as a best practice in transition education. The challenge of actively including students with disabilities into their educational planning, required professionals in the field of disability to address strategies that could be used to effectively teach self-determination. Students needed to be prepared so that they could be the primary decision makers in their own futures.

## Self-Determination

### *History*

Self-determination became a popular consideration of the 1990s. Elements of self-determination were implied in IDEA by requiring students’ interests, needs, and preferences be addressed in the IEP primarily through student involvement (Wehmeyer, 2001). As a result, the

federal government funded projects to explain how self-determination could be incorporated into the transition process for students with disabilities (Field & Hoffman, 2007). Wehmeyer, Palmer, Soukup, Garner, and Lawrence (2007) indicated that it was no accident that self-determination initiatives were closely related to the time when IDEA began to mandate student participation in the IEP. Giving students with disabilities a voice concerning their educational plans was a new concept for everyone in the field and it required an in-depth look to identify strategies that could be used to teach students how to participate in their educational process.

Self-determination for those with disabilities, especially those who had been institutionalized, meant accessing the basic human rights of life, liberty, and the pursuit of happiness (Wehmeyer, 1993). The focus on self-determination was primarily led by individuals with disabilities who insisted on having choice and control regarding their lives. The self-determination movement represented an era in which parents and professionals no longer drove educational services, particularly transition plans, to a time when students assumed the role of being their own advocates (Wehmeyer, Bersani, & Gagne, 2000).

The concept of self-determination appears in several pieces of federal legislation including IDEA 1990, 1997, and 2004, and the Rehabilitation Act Amendments in 1992 (Wood, Fowler, Uphold, & Test, 2005), both suggesting that individuals with disabilities should be actively involved in their educational and employment planning. Some underlying foundations that have influenced disability services, particularly related to self-determination include normalization, supported employment, deinstitutionalization/community integration, and positive behavior support (Wood et al.). Attempting to provide individuals with disabilities access to equal opportunities, though having been acknowledged in legislation, requires a complex accrument of skills and strategies that have not been addressed.



The theory of self-determination has varied among authors in which some, such as Wehmeyer, describe it as a process of developing characteristics that are used to demonstrate self-determined behaviors, while others view self-determination as a learning process that individuals go through not necessarily requiring acquisition of specific characteristics (Shogren et al., 2008). That is, for most individuals self-determination is a naturally acquired skill. It is expected that as opportunities and experiences come along, individuals develop self-determined behaviors. However, for others, especially those with disabilities, self-determination requires explicit instruction and planned opportunities and experiences to practice self-determined behaviors (Jones, 2006).

### *Definitions*

Many descriptions have been offered to define self-determination and all of those encompass similar components. A most common definition presented by Wehmeyer (1996) describes self-determination as “acting as the primary causal agent in one’s life and making choices and decisions regarding one’s quality of life free from undue external influence or interference” (p. 24). The underlying explanation and description of self-determination simply gives a voice to those who, for so many years, were deprived of their right to define their own life goals. It is not until individuals realize that they can control their own life, that empowerment truly occurs (Jones, 2006).

“An act or event is self-determined if the individual’s action(s) reflects four essential characteristics: (a) the individual acted autonomously, (b) the behaviors were self-regulated, (c) the person initiated and responded to event(s) in a psychologically empowered manner, and (d) the person acted in a self-realizing manner” (Wehmeyer, 1996, p. 24). Sands and Wehmeyer (1996) state if a person is to be self-determined they must exhibit the necessary skills and

attitudes. They refer to the skills as autonomy and self-regulation and the attitudes as psychological empowerment and self-regulation. Each of the essential characteristics is described in detail below.

Behavioral autonomy is comprised of several different meanings and concepts. As time progresses, individuals assume care and responsibility of their own lives, which reflects autonomous behavior, that in the Greek language, means “self-rule” (Sands & Wehmeyer, 1996). A behavior is considered to be autonomous if the following two conditions are met: “The person acts

1. According to his or her own preferences, interests, and/or abilities
2. Independently, free from undue external influence or interference” (Sands & Wehmeyer, p. 25).

For youth with disabilities, it is necessary to provide them with both instruction and practice in becoming autonomous individuals. Behavioral autonomy is a characteristic that must be fostered over a period of time if youth are to become “self-ruling” individuals.

The second characteristic is self-regulating. This concept means that individuals are self-determined if they self-regulate their own behaviors. Self-regulating behaviors include “self-management strategies, goal setting attainment behaviors, problem-solving behaviors, and observational learning strategies” (Sands & Wehmeyer, 1996, p. 26). For youth with disabilities, specific strategies for implementing these behaviors appropriately must be taught. To be self-regulated means that individuals are responsible for controlling their own lives. They are the primary person managing their life and they have the necessary skills for doing so.

Being psychologically empowered is another characteristic of an individual who is self-determined. This concept appears to be more of an abstract idea because it is based on an

individual's belief that they are in control of their own lives. Sands and Wehmeyer describe that if a person is psychologically empowered "they (1) have control over circumstances that are important to them, (2) they possess the requisite skills to achieve desired outcomes, and (3) if they choose to apply those skills, the identified outcomes will result" (p. 26). Related to the combination of skills and attitudes that are necessary for an individual to be self-determined, psychological empowerment represents an attitude. Though an individual may know of an appropriate strategy to use in a particular scenario, if they do not believe that the desired outcomes will be achieved, they are likely to not use the strategy (Sands & Wehmeyer). This is an illustration of why simply providing individuals with skills and strategies for acting self-determined must be accompanied by opportunities to practice, to see the identified outcomes prevail.

The final characteristic of being self-determined is to be self-realizing. This element reflects the importance of individuals with disabilities being aware of themselves and understanding their strengths and limitations (Sands & Wehmeyer, 1996). It is important to be self-realizing so decisions are based upon an individual's unique needs, and therefore, the benefits are specific to that individual. Self-realizing behavior is fostered through a variety of experiences, both within an individual's environment and among people present in his or her life (Sands & Wehmeyer). As with being psychologically empowered, gaining the attitude of being self-realizing requires individuals to have experiences where they can feel the effects of acting in a self-realizing manner.

An important consideration for individuals with disabilities to display all four characteristics of self-determination described above, is that such skills and characteristics be incorporated into content instruction. There are many skills that comprise self-determined

behavior including goal-setting, decision-making, problem-solving, self-advocacy, and self-management (Wehmeyer, 2001). For individuals with disabilities, acquisition of the above skills requires explicit instruction and practice.

“To be most effective, self-determination should not be viewed as a separate component, course, or activity within transition supports and services; it has the greatest potential for positive effects for students when it is seen as a central organizing concept throughout all aspects of transition services, including assessment practices, for students with disabilities” (Field & Hoffman, 2007, p. 181). That is, self-determination should become an integral part of everyday learning. Teachers must maintain focus on allowing students to participate and determine their own expectations and goals. Though such instruction should begin at an early age, teaching self-determination skills during adolescence for students with disabilities is appropriate considering the development of all students during this time.

While adolescents are attempting to expand their independence and develop friendships, they are encountering situations that require them to act self-determined, particularly related to decision making. The students in this age-group are typically testing authority and dealing with peer pressure on their way to gaining control over their lives (Wehmeyer, 1995). It is important for students during this stage of life to be obtaining the skills needed to make good decisions as well as receiving opportunities to practice using such skills.

Finally, Trainor (2002) cautioned professionals to be conscious of the diversity among students when encouraging self-determination, as some cultures have differing views on students assuming and taking responsibility of their lives completely independent of their culture. The dominant society tends to drive the values that are accepted and encouraged in the educational environment, and though no one would argue that values such as self-determination

are not regarded as important, minority cultures may approach such values in a different manner (Trainor). For example, living independently is a measurement of a successful transition for students with disabilities in the dominant culture but some cultures do not identify independent living as a goal for their children (Trainor).

### *Rationale for Self-Determination*

Students with disabilities continue to experience limited employment and social opportunities, suggesting that an apparent educational component, self-determination, has not been appropriately addressed (Wehmeyer, 1995). It was suggested by the Council for Exceptional Children's Division on Career Development and Transition that to improve the transition from school to post school, more occasions be provided to encourage the development and practice of self-determination (Field, Martin, Miller, Ward, & Wehmeyer, 1998). As young children grow and develop it is important to provide them opportunities to practice self-determination so that as they become older they will be better prepared to respond to events in their lives (Test & Neale, 2004).

Legislative mandates have encouraged states and local school districts to identify instruction in self-determination as a primary focus of transition education. However, despite such efforts, there is still a struggle in the application of research findings into classroom practices (Uphold, Walker, & Test, 2007; Wehmeyer, Hughes, Agran, Garner, & Yeager, 2003). Several factors contribute to the lack of instruction in the area of self-determination. Specifically, teacher beliefs about student abilities to learn to be self-determined may explain the lack of instruction in that area (Martin, Van Dycke, D'Ottavio, & Nickerson, 2007). Also, teachers indicate time and access to materials as a barrier to instruction. Environmental factors may also limit opportunities to become self-determined (Wehmeyer et al.).

*Teacher factors.* An ethical consideration for those who work with students with disabilities is the realization that it is their responsibility to uphold and encourage self-determination (Smith, Beyer, Polloway, Smith, & Patton, 2008). Unfortunately, professionals working with individuals with disabilities often feel that their students are unable to be involved as a leader in their transition process (Martin et al., 2007). Specifically, teachers of students with more severe disabilities such as mental retardation often see little relevance in teaching self-determination skills and indicate it as a low priority (Wehmeyer et al., 2000).

Smith et al. (2008) discussed ethical considerations when teaching self-determination including: justice, respect for autonomy, beneficence, and non-maleficence. When considering justice, teachers should question “Is it fair to not teach and help students to become self-determined” (p. 32). Respect for autonomy challenges teachers to release control and allow their student to act as the primary decision maker. Beneficence reminds teachers that making decisions for students involves a collaborative effort allowing all involved with the student to act self-determined. Finally, non-maleficence questions whether teaching or not teaching self-determination will cause harm. Smith et al. reported that teaching self-determination does not cause harm and improves life outcomes, and in fact, not teaching these skills may compromise an individual’s personal freedom.

All too often, caregivers of students with disabilities, including families and teachers, disregard the interests and dreams of the student, leaving the student feeling powerless (Jones, 2006). Because these caregivers tend to be overprotective, they never allow students to realize their own interests and strengths (Jones). That is, they fear students will make harmful or inappropriate decisions and, therefore, they limit the freedom they experience to make decisions. However, it is important they realize, that demonstrating self-determined behavior, especially for

students with severe disabilities, does not require that they act completely independent from others (Wood et al., 2005).

Despite teachers' reservations about teaching self-determination, they acknowledge it as critical skill for their students to attain. In a survey of nearly 1,200 teachers working in transition programs, self-determination was rated as an important skill to teach students (Wehmeyer et al., 2000). Although the importance of teaching self-determination is typically agreed upon by professionals in the field, instructional materials and resources are underutilized in the schools (Uphold et al., 2007; Wehmeyer et al.). Additionally, the overwhelming focus on academics leaves little time for teachers to teach self-determination skills (Konrad, Fowler, Walker, Test, & Wood, 2007; Wehmeyer et al.).

Jones (2006) indicated that teaching students the skills to become empowered does not take away an enormous amount of time from the rigorous academic content to be covered, and in fact empowering students often improves their academic performance. Eisenman and Tascione (2002) infused self-realization activities into a high school English curriculum that included having students write about their disability and challenges. The authors reported students began to ask questions related to their disability and special education in general. They found that most students only had misconceptions about special education and services based on myths they had heard from others.

Though research supports the benefits of teaching self-determination, there is little evidence describing how and if teachers are prepared to teach it; increasing the deficit between research and practice (Thoma, Pannozzo, Fritton, & Bartholomew, 2008). In a study of 50 graduate students training to become special educators, Thoma et al. investigated their understanding of self-determination, methods by which to teach it, and misconceptions regarding

it. The authors reported that the future teachers, though having a clear definition of self-determination, most often described fostering self-determination in the classroom by providing opportunities for students to make choices. Although choice making is an effective strategy it neglects other critical components, such as risk-taking, self-awareness, and self-regulation (Thoma et al.).

Some special education teachers rely on journal articles to assist them in fostering self-determination in the classroom; however, a large number of articles related to self-determination are research-based and published in professional journals which makes it difficult for teachers to translate into practice (Thoma, Williams, & Davis, 2005). There are some articles in *Teaching Exceptional Children* and *Intervention in School and Clinic*, but they are limited (Thoma et al.). Because of the important role that teachers play in overseeing and implementing the instruction in self-determination, the materials needed to teach such skills must be brought to the classroom, instead of hiding beneath the cloak of research. Teachers need practical information and “how to” instructions in order to be successful.

*Environmental factors.* In addition to teacher factors and access to resources and time, there are also other factors that may contribute to the lack of instruction or acquisition of self-determination skills. Assessing students’ environments may help to identify limitations that inhibit the attainment of self-determination skills. Students with disabilities’ struggle to become self-determined far too often is seen as limitation of their disability, when in fact, it may be the strict and highly structured environments, including classrooms that limit their opportunities to act self-determined (Wehmeyer et al., 2003). Wehmeyer and Garner (2003) reported that intelligence level does not significantly impact one’s ability to act self-determined, but rather environments were a determining factor.



The current educational focus on meeting academic outcomes and administrative requests, often develops environments that encourage dependence and little control or choice for students (Wehmeyer, 1995). Unfortunately, when students with disabilities suggest ideas or initiate activities in the classrooms, their ideas are ignored by staff (Houghton, Bronicki, & Guess, 1987). If self-determination is going to be carried out throughout classroom instruction, then teachers must begin to view self-determination as a primary outcome for students (Wehmeyer).

An important component in becoming self-determined that is often affected by the environment is self-realization (Eisenman & Tascione, 2002). However, teachers do not often discuss disability and special education with their students in an effort to avoid the uncomfortable stigmas that are usually associated with these conversations (Eisenman & Tascione). These types of discussions promote disability awareness, which is a primary component of self determination (Wehmeyer, 1993). This lack of information about themselves supports the appropriately titled article by Eisenman and Tascione, “How come nobody told me?”

There is definitely a need for self-determination skills to become and remain a primary focus in the education of students with disabilities. How such skills are integrated into classroom instruction and designed to meet individual student needs will continue to be a challenge that professionals in the field attempt to resolve. Many strategies have been presented for teaching such skills and teachers must determine how to provide the most beneficial environments for students to learn how to be self-determined.

### *Self-Directed IEP*

The most practical way for teaching students to act self-determined is during the transition planning process. Specifically, once IDEA mandated students' preferences and interests are included in the Individualized Education Program (IEP), student participation in the transition process was necessary. It seems quite logical that when students' futures are being discussed, they should be directly involved (Wehmeyer et al., 2007). In order for students to become their own leaders of their transition process, teachers must no longer assume the role of primary director (Martin et al., 2007). In an effort to ensure teachers, parents, and other members of the IEP team understand their role in assisting the student in developing self-determination skills through participation in their IEP, training of the transition process and student involvement should be provided.

Teaching self-determination skills to middle and high school students typically focuses on strategies to include the student in the IEP process. This is one of the first steps that an individual with a disability may begin to take in the development of future independence, and therefore, their active participation is critical. Teaching self-determination in the classroom is not a widespread practice although it has been indicated as a strategy for involving students in the IEP process (Uphold et al., 2007). That is, self-determination and student involvement in the IEP process go "hand-in-hand" because in order for a student to actively participate, they must demonstrate self-determined behaviors.

Individuals with Disabilities Education Act requires that "the public agency must invite a child with a disability to attend the child's IEP Team meeting if a purpose of the meeting will be the consideration of the postsecondary goals for the child and the transition services needed to assist the child in reaching those goals" (Department of Education, 2006, p. 1). The requirement

that students in transition be invited to their IEP meetings initiated the idea that the IEP meeting would be a good place for students to practice self-determination skills. However, if students are to participate in the process, they must be prepared. Martin et al. (2006) suggested that providing students with specific skills and strategies for leading their own IEP meetings will increase their contributions made in these meetings. Additionally, teaching students to direct their own IEP meetings and expecting that they do it increases their self-determination skills (Martin et al., 2007).

All too often students have been invited to their IEP meetings with no preparation of how to actually participate. It was often assumed that students would know what to say by just being there (Martin et al., 2006). Professionals and researchers recognized that something was missing to foster student participation. Weidenthal and Kochhar-Bryant (2007) reported three barriers to middle school students' participation in their IEP meetings; "(a) a lack of response or interest from the student, (b) limited or no preparation with the student about his or her role in the IEP meeting, (c) limited or no self-determination training" (p. 151). These identified barriers suggest that students who receive instruction in self-determination, specifically those skills related to self-directed IEPs, may be more likely to assume an active role in their IEP meetings.

Addressing such barriers involves using materials that teach students specific skills to actively participate in their IEP meetings. The Self-Directed IEP curriculum is used to teach students those specific skills (Martin et al., 2006). Instruction in self-determination assists students in identifying their own interests and preferences, and then teaches them how to convey that information to others on their IEP team. After teaching students specific strategies to lead their IEP meetings using the Self-Directed IEP, Martin et al. reported increases in students (a) leading and starting meetings, (b) talking during the meeting, (c) sharing their interests and

preferences, and (d) having positive feelings towards their IEP meeting and newly developed goals. Providing students with instruction in self-determination will likely lead to their increased involvement in planning for their futures.

### *Self-Determination Curricula*

After identifying self-determination as a beneficial skill, especially for students in the transition process, teachers often search to find materials they can use to foster the development of such skills. As with most content areas, multiple resources are available, all sharing some commonality, but usually taking a different approach to instruction. Depending on individual student needs, different approaches should be considered. For example, a student with a mild disability may require more support in building self-esteem and identifying strengths and interests, whereas, a student with a more significant disability may need to begin with explicit instruction in making choices. Similar to the development of the IEP, the individual student needs and learning styles will guide teachers in the appropriate direction for selecting materials.

Michael Wehmeyer and Jim Martin, two leaders in the area of self-determination, have developed curricula that address the specific skills of self-determined behavior. *Whose Future is it Anyway* (Wehmeyer & Kelchner, 1995) presents a series of steps that students work through to develop awareness, self-advocacy, goal-setting, interests and preferences. *ChoiceMaker Self-Determination Curriculum* (Martin et al., 2003) teaches skills in decision making, independent performance, self-evaluation, adjustment, self-awareness, self-advocacy, and self-efficacy.

The Life Centered Career Education (LCCE) is an additional curriculum developed by Donn Brolin, which incorporates self-determination skills and also focuses on a broader area of instruction in specific transition domains (Wehmeyer, 1993). This curriculum is designed to address the area of self-determination, beginning with self-awareness and continuing through

decision making (Wehmeyer, 1995). Students learn to develop self-confidence, make decisions, set goals, become organized, and take more control over important areas of their lives (Wehmeyer). The LCCE also provides teachers with assessment tools to evaluate student gains in self-determination (Wehmeyer).

Similar to choosing academic instructional materials, evaluating self-determination materials requires the same detailed examination. Uphold et al. (2007) provided a guide for selecting resources, identifying which ones are available, and for what specific skills they may be used to teach. Taking into account individual student needs, disability, and cultural values is important for determining appropriate content. As mentioned earlier, Trainor (2002) cautioned that self-determination curricula may not address cultural values concerning the construct of self-determination (Trainor). Though independence is a basic human right, it is also necessary to respect others and their cultural differences.

### *Teaching Self-Determination*

“Children and adolescents become self-determined adults through opportunities and experiences leading to success; constructive experiences with failure; and opportunities to explore, take risks, and learn from consequences; and by watching adults take control and make decisions” (Wehmeyer, 1995, p. 158). As is the case with many content areas in the school setting, debate and discussion often exist over the best ways to teach particular skills. In most cases, best practices based on empirical research are chosen for instruction. Similarly, self-determination instruction should also be based on empirical evidence. As mentioned earlier, for most youth, self-determination skills are acquired through experiences and opportunities, however, for some students, specific skills must be taught and the most appropriate instructional strategies must be used (Jones, 2006).

There are many different resources and strategies to be used for teaching self-determination such as commercial materials and curricula, group instruction, prompting and feedback, and one-on-one conferencing (Konrad et al., 2007). In a review of interventions used to teach self-determination to students with severe disabilities, the most common technique used was systematic instructional procedures and the most common skill taught was choice making (Wood et al., 2005). The use of a structured curriculum to teach specific components of self-determined behavior may help teachers and students to address the negative associations often made with disability that result in few opportunities to become and practice self-determination (Eisenman & Tascione, 2002).

Specific skills that define self-determination include, but are not limited to, choice making, goal setting, problem solving, self-advocacy, and self-management (Sands & Wehmeyer, 1996). These are the specific skills that need to be taught to develop self-determination (Konrad et al., 2007). Self-determined behavior is not limited to just one act or behavior, but rather a combination of skills that, when combined, demonstrate self-determination. Two of the most common skills chosen for instruction are choice-making and goal-setting (Thoma et al., 2008).

In the area of choice/decision-making, youth must be provided opportunities to practice such skills beginning at an early age in life. Sands and Wehmeyer (1996) state that there are few experiences that are more rewarding for youth than having someone acknowledge respect and trust for their ability to make decisions. Often times the decisions that youth make are good and reflect their future goals in life. For example, in a class to teach self-determination skills, eight out of ten students selected goals for themselves in the area of academics and reported most impressive was that they each reached the goals they had set (Sands & Wehmeyer, 1996).

Another critical behavior in the area of self-determination is that of setting goals. For most of their lives, individuals with disabilities have been told what to do by others leaving them silenced and uninvolved in what is going on in their lives. However, when students are given the opportunities to set goals reflective of their own dreams, they feel valued and empowered (Sands & Wehmeyer, 1996). In the area of goal setting it is important to provide youth with specific skills for setting goals and obtaining them.

When considering which skill areas to teach so that students can become self-determined, it is important to select multiple skills. In fact, Konrad et al. reviewed more than 30 studies implementing self-determination interventions and found more positive effects on academic performance when teaching more than one self-determination skill. For example, teaching only self-management as a strategy was not as effective when self-management was combined with goal setting.

In fostering the development of self-determination for students it is important that teachers provide direct instruction on skill components as well as allow for opportunities for students to practice being self-determined (Thoma et al., 2008). It is simply not enough for teachers to provide the information. Teachers and other caregivers must allow students to practice skills they have learned just as they do for other subject areas. Strategies recommended for teaching students to become self-determined and empowered individuals include: (a) encouraging disability awareness and self-discovery, (b) teaching students about special education services, (c) engaging students in self-monitoring, (d) preparing for student participation and, (e) evaluating the effectiveness of your efforts (Jones, 2006).

Because IDEIA 2004 requires students' needs, interests, and preferences be taken into account, self-determination is clearly seen as a critical component in transition planning (Field &

Hoffman, 2007). In fact, Field and Hoffman suggested involving students in the data analysis and reporting of that information to their IEP team. As mentioned earlier and perhaps the most commonly used strategy for developing self-determined behavior is to allow students to participate in their own IEP process (Test & Neale, 2004). Encouraging students to identify and express their interests, needs, wants, and preferences, is necessary for improving self-determination (Test & Neale).

*Research into practice.* Providing teachers with examples of how to incorporate self-determination instruction into the classroom may encourage teachers to teach such skills more often. For example, a group of teachers set out to teach their students how to become empowered in their own unique ways and discovered several underlying similar components (Jones, 2006). The first is that teachers must acknowledge that students with disabilities are capable of learning about their disability, their IEP, and their strengths and weaknesses. The second is that students are never too young to begin to learn about themselves and their disabilities. The third is that empowering students encourages learning. Students value and become involved in what they are learning. Finally, the teachers discovered that student empowerment was contagious. The students began sharing with others and recruiting more students to participate. The findings of this study suggest that self-determination, for students and teachers, is a process of self-discovery.

An example of a strategy for increasing opportunities for students with disabilities to be self-determined is to transfer teacher-directed learning into student-directed learning (Wehmeyer et al., 2003). Picture cues and audio cues were used to provide a series of tasks that students could complete independently. They also used self-instruction, self-monitoring, self-evaluation, self-reinforcement, and goal setting to shift teacher-directed learning into student-directed



learning. In a single subject design using four students with intellectual disabilities, the students were assisted in identifying a behavioral goal that they wanted to work on. Students were then taught a self-monitoring procedure to use in the regular education classroom to monitor their behavior. All students, with some variability, made progress toward the goal they had set and were able to use the self-monitoring strategies. This study provides support for teaching self-determination by demonstrating benefits of student involvement in a variety of self-managing behaviors (Wehmeyer et al.).

Similarly, Martin et al. (2003) used self-determination contracts with students with behavioral disorders to teach self-regulation skills. The students completed a contract of a particular academic behavior and then identified their reward. Next they completed an adjustment section indicating either they met their goal or what they needed to change to meet their goal. The use of the contracts taught self-regulation skills to the students, specifically the adjustment section of the contract.

For students making the transition into postsecondary education, Durlak, Rose, and Bursuck (1994) identified the self-determination skills that are often required as: (a) awareness of strengths and weaknesses related to academics, (b) ability to discuss strengths and weaknesses to instructors, (c) awareness of appropriate and needed accommodations and, (d) ability to appropriately request services and accommodations. After providing direct instruction on the above skills, eight high school students with learning disabilities made improvements in self-determination. Durlak et al. recommended that students (a) be given opportunities to participate in IEP meetings, (b) be included in regular education classes, (c) taught to ask for assistance, and (d) learn to identify their strengths and weaknesses.

There are many different suggested strategies, experiences, lessons, activities, and skills that should be used for instruction in self-determination. As with all content areas, it is essential to evaluate the students and determine their learning styles to identify explicit strategies. As important as it is for teachers to identify materials and implement strategies, it is equally important for parents to view self-determination as a crucial component in the educational process, if the efforts to teach such skills in classrooms will be effective and fostered throughout the home (Grigal, Neubert, Moon, & Graham, 2003).

Parents indicate that teachers should teach their children with disabilities how to be self-determined and how to participate in their IEP meetings. However, Grigal et al. also found that parents, though supportive of classroom instruction in self-determination, are less likely to teach such skills in the home. These findings suggest that parents need to be provided with an overview of self-determination and the benefits, as well as possible strategies for implementing self-determination training in their homes. There are a variety of methods for teaching self-determination skills to youth with disabilities each offering their own unique improvements to post school outcomes and those methods must be shared with families, if students are to be successful transitioning from school to adulthood.

### *Benefits of Self-Determination*

In a movement that has spanned nearly two decades, there must be some concrete evidence for the continuation of research and practice in the area of self-determination. Improving the outcomes for youth with disabilities is a major concern for the future of our world and the rights and protection of those with disabilities. This section is dedicated to examining the specific benefits related to teaching self-determination skills.

Self-determination skills have positive effects on academic performance, employment, goal setting, and disability awareness (Martin et al., 2007). Examining the benefits of self-determination on academic performance typically requires a look at multiple behaviors including on-task behavior and social skills (Konrad et al., 2007). Very few studies examine the direct benefit of teaching self-determination skills on academic performance alone. In an evaluation of 34 studies which implemented self-determination interventions, Konrad et al. found a positive effect on math accuracy when teaching goal-setting.

Similar to improvement in academic performance related to being self-determined are the effects on transition planning for youth with disabilities. Encouraging students' self-determination increases the achievement of transition goals (Field & Hoffman, 2007). Students who are involved in designing their educational goals and plans are more motivated and more likely to achieve those goals than students who have not been actively engaged in the planning process (Field & Hoffman).

Having students become actively involved in the transition process by having them set goals, define educational outcomes, and make decisions promotes better academic performance and positive post school outcomes (Wehmeyer & Kelchner, 1996; Zhang, 2005). Martin et al. (2006) reported that after teaching students lessons about self-directed IEPs, they increased their participation in the meetings by leading the meetings and expressing their preferences and interests during goal development.

When students are taught self-determination skills they are able to better control their lives and make their own choices (Campbell-Whatley, 2006). To ensure young adults live self-determined lives, it is important to make sure they leave school self-determined (Wehmeyer,

2001). Because teaching self-determination improves the lives of individuals with disabilities, teachers have a responsibility for teaching those skills (Smith et al., 2008).

Also, positive relationships exist between self-determination and employment (Wehmeyer & Schwartz). For example, students with mental retardation and learning disabilities who are self-determined experience more independence and better employment outcomes than students who are not self-determined (Konrad et al., 2007; Wehmeyer & Schwartz, 1997). For example, students with higher levels of self-determination are more likely to maintain a checking or savings account and earn higher wages (Wehmeyer & Schwartz, 1995). Overall, Wehmeyer and Schwartz (1995) reported that students with higher levels of self-determination experienced more positive outcomes than their peers one year after leaving school.

Providing students with tools to be self-determined gives them a sense of control over their lives which makes them feel empowered (Campbell-Whatley, 2006). Allowing students to have some control over choices and decisions that are made about their lives can improve behavior and physical well-being (Clark, Olympia, Jensen, Heathfield, & Jensen, 2004). Teaching self-determination skills prepares students to take control over their futures and provides them with some guidance for how to make good decisions.

Self-determination has become a critical factor in determining the success of student transitions (Wehmeyer, 2001) by equipping students with the tools to prepare them for their own transitions, and providing opportunities to develop self-determination results in students who take more responsibility for their lives after school (Weidenthal & Kochhar-Bryant, 2007). Instruction in the area of self-determination is beneficial for all students with disabilities. Even students with severe disabilities who were taught several components of self-determination enhanced their community participation and independence (Sowers & Powers, 1995).

Examining instructional strategies that have been used to teach self-determination reveals that such skills are usually taught through teacher-directed classroom instruction. Because self-determination is a set of skills that are typically learned through experience and opportunities, it is perhaps necessary to explore additional instructional methods for teaching such skills. One suggestion may be to use a mentoring program in which a specific curricula to teach self-determination is presented through a strategically matched mentor.

## Mentoring

### *History*

Identifying where the term mentor was first used, requires a look back at the ancient Greek poet, Homer and his poem, “The Odyssey” (Dappen & Isernhagen, 2005). Odysseus was leaving his son for an extended period of time to go to the Trojan War and he wanted to find someone who would guard and tutor his son while he was away. He appointed his companion, Mentor, to look after his son (Dappen & Isernhagen; Dondero, 1997; Ensher & Murphy, 1997). The name mentor has since become a widely used noun to describe relationships that are in many ways similar to that of Odysseus’s son and Mentor.

There is little historical evidence documenting formal mentoring programs such as those seen today. However, there is suggestion that such programs did exist. For example, in the latter half of the 19<sup>th</sup> century a program called Friendly Visiting was established. This program provided role models for children who were poor (Guetzloe, 1997). In 1904, Big Brothers was established by a men’s club in a church and eventually developed into Big Brothers/Big Sisters of America (Guetzloe). Though mentoring programs have evolved over the years, similar components of the early programs are seen in today’s mentoring programs.

Our educational and behavioral support systems have typically demonstrated a reactive approach to defining solutions to issues. However, a shift has occurred from a focus on solving problems for youth to providing social supports, opportunities and positive experiences, such as mentors (Rhodes, Grossman, & Roffman, 2002b). Mentors, besides being positive role models, carry other responsibilities such as demonstrating trust and confidence in their mentee's performance and ability, teaching appropriate behaviors, and encouraging and praising the mentee (Slicker & Palmer, 1993).

Mentoring relationships have become increasingly popular due to the large number of children living in low income families, single home families, or unsafe neighborhoods (Rhodes et al., 2002b). These conditions leave very little time for parents to be with their children and families may seek outside sources to provide those connections (Rhodes et al.). In today's society, youth do not always have a consistent, reliable, and positive adult role model in their lives, which has been identified as a critical component in their social, academic, emotional, vocational, and interpersonal development (Guetzloe, 1997).

A mentoring relationship is often described as a "caring and supportive relationship between a youth and a non-parental adult" (Rhodes, Spencer, Keller, Liang, & Noam, 2006, p. 692). Because families and parents, in most instances, are supportive no matter how many times failure occurs, mentors are typically other adults who can objectively inspire youth to believe in themselves. The development of influential and supportive relationships for youth with someone outside of the family is a primary contribution to defeating difficult times (Rhodes, Bogat, Roffman, Edelman, & Galasso, 2002a).

## *Definition*

Although definitions of mentors may vary, most include or are based on the concept of an older individual who develops a relationship with a younger individual to assist in his or her developmental needs (Guetzloe, 1997). Bernard (1995) stated,

The presence of at least one caring person—someone who conveys an attitude of compassion, who understands that no matter how awful a child’s behavior, the child is doing the best that he or she can given his or her experience—provides support for healthy development and learning. (p. 2)

Additionally, “Mentoring is a human relationship that includes encouraging and guiding personal growth and development” (Campbell-Whatley, 2001, p. 212).

Some definitions of mentors include terms of coaching and guiding and others describe more in-depth relationships that change in their nature over time (Ensher & Murphy, 1997). Mentors are most often friends and supporters. They are not usually social workers, professional counselors, or parents (Campbell-Whatley, 2001). Though mentoring is a widely defined topic, there is still some discussion in what actually constitutes a mentor. Mentoring is a term, which despite its frequent use in schools, businesses, and social services, lacks a cohesive definition among its users (Whelley, Radtke, Burgstahler, & Christ, 2003).

The most common type of mentoring is defined as a series of meetings over time between an older individual and a child, in which the older individual typically provides care, support, and guidance (Karcher, 2005). Though typical mentoring relationships consist of an adult and child, another approach to mentoring is to use peers. Receiving support from someone who has successfully faced comparable experiences is perhaps the most effective type of support (Veith et al., 2006).

Solomon (2004) defined peer support as those relationships between individuals with similar disorders that provide social-emotional support and assist in personal change and development. Peer mentors, having shared a similar experience, must be empathetic and provide good guidance to those they mentor (Veith et al., 2006). In addition, peer mentoring relationships are more available than the typical adult to younger person mentoring approach (Kram & Isabella, 1985).

### *Rationale for Mentoring*

Of the 15 million youth in our nation who could benefit from mentoring, only 2.5 million are reportedly participating in a formal program (Wandersman et al., 2006). It is important to examine specific program components and to evaluate the effectiveness of mentoring programs so that they may be replicated and made available to more youth. Though mentoring programs may be influencing nearly 5 million adolescents nationwide, there is still little known about the structure of these programs and the effects that they have on academic achievement (Rhodes, Grossman, & Resch, 2000).

Mentoring programs are becoming more popular and beneficial to students in today's society. Youth do not always find supportive adults in their environments due to the changes in family styles and marital status, employment patterns, as well as overcrowded schools and distant communities (Rhodes, Reddy, Roffman, & Grossman, 2005). Often times youth in single parent homes receive little individual attention, emotional support, guidance, financial support, and positive role models, making a mentor very important in their lives (Abbott, Meredith, Self-Kelly, & Davis, 1997).

Because mentoring programs have such a wide variation in program structure and practices, it has been difficult to find more than small effects for improving youth outcomes



(Rhodes et al., 2002b). Rhodes et al. cautioned that some youth will progress very well in structured and formal programs, whereas, others may prefer informal interactions, thus indicating the need for diversity among mentoring programs. Though mentoring programs are rapidly growing and offer hope to many youth, there is very little known about the structure and influence of mentoring programs (Rhodes et al., 2002a).

The primary focus of the benefits of informal mentoring has been concentrated on those individuals at-risk, including teens who are pregnant, African American, and/or Hispanic in low income families, leaving much to question about the benefits informal mentoring holds for the general adolescent population (McDonald, Erickson, Johnson, & Elder, 2007). Though mentoring programs serve a large, diverse group of individuals including race, gender, economic status, and other group differences, a cause of limited research may be related to the limit of measurements to assess such programs (Rhodes et al., 2006).

The research documenting the effects of mentoring programs is not very consistent due to differences in mentors, youth, and program characteristics (Rhodes, 2008). There is an overwhelming growth in mentoring programs, which begins to give caution to the quality of these programs (Guetzloe, 1997). That is, mentoring programs should be structured according to best practices and programs should provide a solid foundation for those participating. Rhodes et al., (2002a) cautioned that though mentoring programs may be beneficial in providing positive role models and encouragement, there are still environmental factors that put youth at risk, such as income, public safety, housing, and child care, that mentoring programs cannot solve alone.

Mentoring programs often serve youth with disabilities. However, mentors and program managers may be unaware of the effects that disability may have on a mentoring relationship (Sword & Hill, 2003). Youth with disabilities aged 12–19, are reported to be the most

underserved group of individuals among the entire population and more specifically of those with disabilities (Snowden, 2003). Friendships and peer relationships are often limited for youth with disabilities and may lead to feelings of isolation which can impact not only self-esteem but academic achievement and career development (Snowden). Youth with disabilities are not often provided an opportunity to establish relationships with others who have similar disabilities and who have experienced similar obstacles (Powers, Sowers, & Stevens, 1995).

However, most mentoring programs, which provide support and encouragement, are hopeful in deterring students from engaging in negative behaviors typically developed during middle and high school. As well, mentoring programs may be essential in assisting youth in improving behaviors that will be needed throughout life. In an effort increase mentoring in schools and communities and to obtain funding to implement and improve programs, it is essential that research be gathered on the characteristics of high quality programs and the practical implementation procedures (Rhodes, 2008).

### *Developing Mentoring Programs*

Mentoring is a widely used strategy for developing positive relationships, yet the effects of such programs need to reach more youth. In an effort to influence a greater number of students, mentoring programs need to provide organizational structure and appropriate resources to obtain mentors (Dappen & Isernhagen, 2006). Several characteristics related to successful mentoring relationships include the role of the (a) mentor in mentee's life, (b) number of contacts between the mentor and the mentee, (c) the intimacy of the relationship, and (d) duration of the mentoring relationship (DuBois & Silverthorn, 2005a).

Designing and sustaining a mentoring program requires the implementation of strategies that will improve the effectiveness of the program. Mentoring practices include the “monitoring

of program implementation, careful screening of mentors, matching mentors and mentees on at least one criteria, pre-match and ongoing training for mentors, program supervision, support for mentors, some structured activities, parent support and/or involvement, and expectations for frequency of contact and duration of the mentoring relationship” (Dappen & Isernhagen, 2006, p. 152; Karcher, 2005). The importance of those practices is verified by Rhodes et al. (2002b) who reported stronger effects from mentoring programs when implementing such best practices.

*Mentors.* Feeling comfortable and accepted typically means being around those who possess similar qualities and share common experiences. Satisfying mentoring relationships have been described as those relationships in which the mentor and mentee have had similar difficulties and experiences (Glomb, Buckley, Minskoff, & Rogers, 2006). Effective mentors are good listeners, they are compassionate, and they remain consistent, honest, patient, and respectful throughout the mentoring relationship (Hibbard et al., 2002). Mentors are responsible, trustworthy, resourceful, and willing to commit to a mentoring relationship (Snowden, 2003). Mentors must set high expectations and provide their mentee the confidence to achieve specific goals (Dondero, 1997).

Rose and Jones (2007) cautioned that using mentors who represent school personnel may compromise the development of an effective relationship. That is, the mentee and their family may not be able to share their true feelings or concerns about an experience that is related to the school for fear that information may not be confidential. Rose and Jones recommended that when selecting mentors it is important to involve volunteers that are not connected with the school authority to assist students in developing the most beneficial relationships.

A primary characteristic of mentoring relationships is the creation of a trusting and close association between a mentor and a mentee (Rhodes et al., 2000). In fact, the relationship that is

developed and the bonds that are formed just from the consistency of having a positive influence in the mentees' life is more beneficial than focusing on specific goals or objectives to accomplish in the mentoring program (Rhodes et al.). Mentors provide a wide variety of support, including both skill and emotional support (Ensher & Murphy, 1997).

Mentors tend to fall into two categories, developmental and prescriptive (Langhout, Rhodes, & Osborne, 2004). Developmental relationships tend to fair better than prescriptive because they are flexible and youth-driven compared to prescriptive which are adult-driven (Langhout et al.). When examining the relationships between mentors and mentees, one suggestion is that mentors actually indirectly affect the mentees through their role model characteristics and positive outlooks (Rhodes et al., 2000).

Though most mentors are volunteers from within a community, there are also mentors who are naturally available in a young person's life. Rhodes et al. (2002a) defined natural mentors as those individuals who are in the young person's life, but who mentor in varying roles that include both parent-like characteristics and peer characteristics. Because natural mentors are not always available, volunteer mentors are often matched to youth in the community (Rhodes et al.). Natural mentors already exist within the mentee's environment differing from formal mentor programs where adult mentors are assigned (Klaw & Rhodes, 1995). Natural mentors are adults outside of the mentee's family that provide support, guidance, and encouragement (Klaw & Rhodes).

Natural mentors are supportive older individuals in a young person's life. These mentors are not forced or assigned through a formal mentoring program and provide guidance and encouragement that deters youth from engaging in negative behaviors (Rhodes et al., 2005). Identifying natural mentors often results from researchers asking youth if "Other than your

parents or step-parents, has an adult made an important positive difference in your life at any time since you were 14 years old?" (DuBois & Silverthorn, 2005b, p. 519). DuBois and Silverthorn reported that approximately 40% of natural mentors are family members, 26% are teachers or counselors, and other natural mentors are usually religious leaders, coaches, employers, neighbors, friends, or doctors.

*Peer mentors.* In addition to volunteer mentors and natural mentors, a unique relationship may develop between two youth who are in similar situations. Peer mentors have been described as being natural supports, noting that they are easily available and can improve organizations' ability to be more efficient (Westerlund, Granucci, Gamache, & Clark, 2006). Peer mentors are mentors who are of similar age, status level, and share common experiences with those they mentor (Whelley et al., 2003). Though peer mentoring programs initially create an image of two youngsters, adults who have similar experiences may also form peer relationships. For example, parents of children with disabilities are often matched to share their common stories and challenges (Hibbard et al., 2002).

Westerlund et al. (2006) suggested using a peer mentor to provide instruction and coaching in school-based vocational training to assist students with behavior or learning disabilities to develop their interests, strengths, and work skills. Using peer mentors in work related activities, both in school and in the work place, provides students with a non-threatening individual who can assist them in the social expectations, as well as with job skills (Westerlund et al.). For example, Westerlund et al. matched four female students studying cosmetology with mentors who were advanced students in cosmetology. All of the students improved their work-related tasks. Receiving guidance, correction, and feedback from a counterpart may be less intimidating and be more readily responded to, than receiving such commands from a supervisor.

Peer mentors can be beneficial to young individuals in multiple ways including providing cognitive and psychological support (Kram & Isabella, 1985). Some of the advantages to using peer support to improve psychosocial process include social support and experiential knowledge (Solomon, 2004). Peer mentoring relationships should be based on both the mentor's and the mentee's willingness to be available and care, as well as their common experiences. Using peer mentors provides individuals realistic expectations, assistance in problem solving, improved motivation and encouragement, and skills for setting achievable goals (Veith et al., 2006).

Using peer mentors provides several advantages to adult mentors in that peers are viewed as equals (Whelley et al., 2003). For example, individuals with spinal cord injury who experienced having a peer mentor with the same type of injury reported improved occupational experiences and life satisfaction (Veith et al., 2006). These individuals indicated that despite all of the information the hospital had provided, magazines, books, Internet, and staff, the individuals identified their peer mentors as the "most credible source of information" (Veith et al., p. 294). Not having to challenge the differences in authority, peer mentoring relationships may be more effective in developing communication and support (Whelley et al.).

Another advantage to using peer mentors is their readiness and availability. Peers are usually already in the environment and provide natural support (Whelley et al., 2003). Peer mentors, because there is very little difference in age, experience, and job title, allow for more two way communications and understanding (Whelley et al.). Also, peer relationships provide students with disabilities the emotional and social support they may need throughout their education and post school life (Whelley et al.).

Because the adult partner has lived through the problems and limits that the youth is facing, a mentor is able to broaden the horizons of a partner and to challenge that partner

to reach out and control life with a greater degree of legitimacy. The youth sees that someone with the same challenges can accomplish greater things than the youth had ever imagined. (Snowden, 2003, p. 39)

There is evidence that supports the use of peer counseling between two individuals with similar disabilities, of which one has achieved independence in the community, to improve the transition of the other individual into the independent world (Powers et al., 1995).

Mentors play significant roles in the lives of others. It is important that they have skills necessary to facilitate the relationship with their mentee. Once mentors have been identified, the process of pairing mentors and mentees can be quite complex. Ideas and suggestions for creating appropriate mentor and mentee matches should be considered as an important component in developing a mentoring program.

### *Types of Mentoring*

There are many different types of mentoring programs. Sword and Hill (2003) suggested that the most common type of mentoring session arrangements include: in-person, one-on-one, and community-based meetings. Some types may even include small group sessions (Sword & Hill). E-mail messaging, telephone conversations, in-person meetings, letters, and other communication methods are also used for mentoring (Sword & Hill).

Guetzloe (1997) identified five types of mentoring, traditional, long-term, short-term, team mentoring, and group mentoring. Traditional mentoring involves one-on-one sessions including three hours of contact time each week for at least one year. Long-term mentoring programs focus on a specific skill or goal and continue until that skill or goal is met. Short-term mentoring programs are similar to long-term programs in that they focus on a specific skill, but they last no more than six months. Team mentoring may include husband and wife mentors

working with the same mentee for at least a year. Finally, group mentoring includes one mentor with multiple mentees, such as Boy and Girl Scouts (Guetzloe, 1997).

Because recruiting volunteer mentors often falls short of supporting every youth in need of a mentor, some organizations have implemented group mentoring which is described as assigning more than one youth to a single mentor (Rhodes et al., 2002a). Group mentoring may provide great opportunities for mentors to suggest strategies for peer interaction and socialization (Rhodes et al.). This type of mentoring may also offer some extra benefits when compared to one-on-one mentoring (Rhodes et al.).

Mentoring programs can be considered formal or informal (McDonald et al., 2007). Formal programs include those such as Big Brothers/Big Sisters, which formally matches mentors with at-risk students (McDonald et al.). Mentoring relationships that are considered to be informal, typically involve those individuals with whom the mentee already comes in contact with, referring to them as natural supports (McDonald et al.).

The majority of mentoring programs across the United States, 39% are based within the community (Dappen & Isernhagen, 2006). Additionally, 29% are school-based and 19% are supported by community organizations. The remaining mentoring programs are implemented by faith-based organizations (2%), businesses (2%), or programs supported by email communication (1%) (Dappen & Isernhagen).

School-based programs are a particular type of mentoring program that is growing very rapidly (Dappen & Isernhagen, 2006). School-based programs are the second largest (29%) type of program being implemented (Dappen & Isernhagen, 2006) and it is necessary to consider specific characteristics of those programs. Dappen and Isernhagen compiled the following reasons for the large shift to school-based mentoring programs:



(a) if programs are going to serve significantly more students, they will have to be where the youth are, which is in schools; (b) parents are frequently uninterested or unwilling to refer their child for a mentoring program; (c) the umbrella of the school provides a comfort to some mentors who would not otherwise volunteer; (d) school-based mentoring programs are more cost effective than community-based programs...; (e) the availability of student diversity and general support of the school setting facilitates cross-gender, cross-racial, and special-needs student matching; and (f) school-based programs frequently have links with other community resources, enabling all to be used more effectively. (p. 22).

The increase of these programs requires professionals to seek information to design programs that fit into the school setting.

Appropriate program development requires a series of steps to ensure effectiveness of school-based programs. King, Vidourek, Davis, and McClellan (2002) recommended the following suggestions when implementing a school-based mentoring program.

1. "Obtain and maintain administrative support.
2. Devote resources toward creation of a mentor project coordinator.
3. Develop a multidimensional mentoring program that includes such components as relationship building, self-esteem enhancement, goal setting, and academic assistance.
4. Recruit mentors from the community around the school.
5. Provide ongoing training sessions for mentors, and remain available for ongoing technical assistance.
6. Obtain parental and community support.
7. Keep parents informed about program events and progress" (p. 299).

King et al. (2002) suggest that these programs require collaborative efforts among many individuals.

Another reason school-based mentoring programs are becoming more and more popular is because the time requirement usually is only one hour per week (Rhodes et al., 2002a). These programs are also more structured, which results in a greater variety of mentors who volunteer (Rhodes et al., 2002a). School-based mentoring programs are cost effective, costing nearly half as much per youth to implement as traditional community-based programs (Rhodes et al.). When implementing a school-based mentoring program, Rhodes et al., cautioned that mentoring relationships typically end with summer vacation. In addition, the average time mentors and mentees spend together in school-based programs per month is six hours compared to twelve hours with community-based programs. As well, school-based mentoring programs focus more on academics and may neglect other areas needing support.

Research on types of mentoring programs primarily focuses on formal programs. However, informal mentoring offers the same benefits as formal mentoring programs do, such as improved relationships with others, academic success, appropriate behaviors, and psychological well being (McDonald et al., 2007). Formal mentoring programs, designed for one-on-one encounters are related to positive academic, behavioral, and social outcomes (Rhodes, 2008).

Mentoring programs create many opportunities for the youth receiving these services to improve their cognitive, social, and emotional development, and self-perceptions (Rhodes et al., 2006). Another step in program development requires a look at specific goals and objectives of the program. The overall focus of the mentoring program assists in designing the individual mentoring sessions so that they are effective in achieving the overall goal.

## *Mentoring Sessions*

Mentors are to serve as role models for their mentees through their actions and their communication skills while they provide support, direction, and encouragement to their mentee (Campbell-Whatley, 2001). To influence mentees' competence and character, most mentors spend time during the mentoring sessions encouraging, instructing, and providing guidance to their mentee in the areas of leisure and career oriented activities; however, sessions should still provide some flexibility for the mentor and mentee to identify the tasks they want to accomplish (Rhodes et al., 2002b). Mentees may take some time to accept mentor guidance and encompass new strategies, so mentors should continue to provide the support and guidance the mentee may need (Campbell-Whatley).

There is little known about the stages a mentor and a mentee go through when developing their relationship (Rhodes et al., 2002a). There is believed to be an initiation phase, followed by an admiration phase in which each member of the relationship is trying to impress the other, and then the roles of the relationship begin to be defined (Rhodes et al.). Communication is one of the most critical components of a mentoring relationship and mentors should present characteristics that show they are listening, including repeating back to their mentee what they have said (Campbell-Whatley, 2001).

Designing the exact agenda for a mentoring session, while important to the structure of a mentoring program, should allow for some individual characteristics and needs to be taken into consideration. For example, some youth may not be very talkative, but would perhaps be very competitive if a game were initiated. Mentors should be provided with some suggestions, but also with some flexibility. An example of a session may be to begin with an "... icebreaker, a connectedness curriculum activity, a snack, and a group game or recreational activity" (Karcher,

2005, p. 70). Other mentoring sessions, especially those designed to facilitate career development, may include activities such as job shadowing (Whelley et al., 2003).

Determining the structure of a mentoring session should be guided by the overall purpose of the program and the needs of the individuals. Oftentimes mentors may be provided a weekly allowance that funds outing events with their mentees, including going to a movie, eating out, traveling, and other events that have expenses (Rose & Jones, 2007). Despite the exact structure and activities of the mentoring session, the goal is to develop a relationship that fosters growth and development. Two examples of mentoring programs are the Learning Leaders Mentoring Program and the Healthy Kids Mentoring Program. Although different in many aspects, both of these programs were developed for a specific overall purpose and include some structured and non-structured activities.

The Healthy Kids Mentoring Program, involving fourth graders, held sessions twice each week for one and one half hours and addressed the areas of relationship building, self-esteem enhancement, goal-setting, and academic support (King et al., 2002). Relationship building activities in the Healthy Kids Mentoring Program involved a journal with questions that the mentor would read and write an answer and then the mentor would share their answers with the mentee and the mentee would then answer the questions (King et al.). Examples of the questions were: (a) “What are you most proud of having accomplished? (b)What is the bravest thing that you ever did? (c) Who are your heroes and why? and, (d) What is the hardest thing about growing up?” (p. 294)

After implementing the Healthy Kids Mentoring Program for five months, students’ scores on self-esteem, school connectedness, peer connectedness, and family connectedness were significantly higher than before the program (King et al., 2002). Examining risky behaviors

indicated that students who had participated in the mentoring program were less likely to have bullied another student or have had a physical fight (King et al.). Academic subject grades were compared from the first quarter (no mentoring) to the fourth quarter (five months mentoring) and 20 of the 28 students showed letter grade improvements in at least one subject area (King et al.). King et al. concluded that school-based mentoring programs can improve student self-esteem through focus on academics and relationships.

The Learning Leaders Mentoring Program, at James Madison University in Virginia, provides mentoring from college students with learning disabilities or attention deficit hyperactivity disorder to school aged students with similar disabilities (Glomb et al., 2006). A typical mentoring session lasts approximately one hour each week after school to allow for faculty supervision. During the first five minutes of the session, the mentor and the student reflect on the past week, then 15 to 30 minutes is spent on an academic assignment, and then the mentor and the student work on some non academic task, and complete the last five minutes of the session with a journal entry about the meeting (Glomb et al.).

### *Mentoring Duration*

Although there are approximately five million American youth involved in mentoring programs, nearly half of those relationships terminate within a few months (Grossman & Rhodes, 2002). Examining the duration of mentoring programs is critical to avoid negative effects that may result from relationships that end after a few months (Grossman & Rhodes). Most youth who participate in at-risk youth mentoring programs have experienced very few and very brief relationships with adults outside of their family. Many of these youth may feel at fault for the problems in relating to adults and may take the blame for unsuccessful mentoring relationships (Grossman & Rhodes).

Because adolescence is a time of figuring out one's self, usually dependent upon rejection and acceptance, youth are extremely vulnerable to disappointment and emotional struggles when mentoring relationships do not progress (Grossman & Rhodes, 2002). Since there are so many changes and positive influences that occur from being with a positive role model, it is necessary for mentoring relationships to progress over a long period of time (Grossman & Rhodes). Most mentoring relationships take at least six months for the bond between the mentor and the mentee to be solid (Grossman & Rhodes).

One of the most notable qualities of an effective mentor is availability and frequent meetings between mentors and mentees (Veith et al., 2006). In order for mentoring programs to be effective, it is recommended that they be long-term and intensive (Whiting & Mallory, 2007). In fact, caution is given to mentoring programs that are too short in duration and those programs that provide very little structure (Whiting & Mallory). Mentoring programs should provide for ongoing, regular meetings between mentors and mentees (Sword & Hill, 2003). Large breaks in meeting time can negatively impact the relationship and may create frustration (Sword & Hill).

Developing a strong relationship is the primary component of a successful mentoring program (Rhodes et al., 2002b). Therefore, Rhodes et al. concluded that the duration of mentoring programs is crucial and the greater outcomes related to mentoring programs were relationships that lasted for a year or longer and those that were less influential lasted between three months and one year. It is suggested that mentors and mentees have between one and three hours of contact each week and mentors should be committed to an entire school year (Campbell-Whatley, 2001). It may be beneficial to suggest that mentors and mentees make and perhaps sign an agreement that they will both be present for mentoring sessions (Whiting &

Mallory, 2007). This agreement will help emphasize the importance of commitment to the mentoring relationship for both parties involved.

School-based mentoring limits the time frame in which mentoring sessions can occur, often times resulting in duration of six to nine months (Karcher, 2005). On average, a school-based mentoring program lasts approximately 5.3 months (Rhodes, 2008). Karcher indicated that the shortened duration of mentoring sessions may result in smaller effects when compared to those sessions that were longer. However, positive outcomes were predicted more often by the frequency of contact than by the length of the mentoring program (Karcher). Even though the time is limited, significant differences have been noted between intervention and control groups receiving mentoring (Rhodes).

In order for the objectives and goals of a particular mentoring program to be effective, time must be devoted to the development of that relationship before a specific focus is given to particular outcomes (Rhodes et al., 2005). Duration is such a critical factor in successful mentoring relationships that it is vital to examine predictors that contribute to a long term relationship (Grossman & Rhodes, 2002). For a mentoring relationship to be effective, it must possess components that will consider it to be effective, such as frequent contacts and emotional closeness (Parra, DuBois, Neville, Pugh-Lilly, & Povinelli, 2002).

In addition to the time restraints that may shorten the duration of mentoring programs, there are several other contributing factors, such as age and gender. For example, mentoring relationships tend to last longer for those 10–12 year olds when compared to 13–16 year olds (Grossman & Rhodes, 2002). Also, girls typically remain in mentoring relationships at least one month longer than boys (Rhodes et al., 2008). In fact, mentoring relationships involving girls

often last between 13 and 18 months, whereas mentoring relationships for boys often last between 6 months and 12 months (Rhodes et al. 2008).

The duration of mentoring relationships may also be affected by other characteristics of those involved. For example, relationships that consist of a higher income volunteer last longer than those with lower income volunteer (Grossman & Rhodes, 2002). In addition to income level, youth have reported other factors they feel contribute to the duration of the relationship. Youth who benefited from mentoring programs report the characteristics that made the relationship stronger were the number of contacts they had with their mentor, the closeness of the relationship, and the length of the relationship (Rhodes et al., 2005).

When designing a mentoring program it is necessary to consider such factors that may contribute the overall success of the program and the individuals involved. Failure to appropriately design a mentoring program with suggested strategies may be harmful to students. For example, Grossman and Rhodes (2002) reported that youth who were in mentor relationships that ended within three months, experienced significant decreases in global self-worth and their perceived academic competence. Mentoring programs of six months or less may provide no benefit for youth and in fact may cause harm (Dappen & Isernhagen, 2006).

When comparing duration of mentoring relationships, Grossman and Rhodes (2002) reported that those mentoring relationships lasting longer than 12 months reported more improvements in academics, psychosocial, and behavioral outcomes than did those in relationships that ended before six months. Specifically, youth showed significant improvements in self-worth, perceived social acceptance, perceived academic competence, family relationships, and abstinence from drugs and alcohol (Grossman & Rhodes). Unfortunately, those whose relationships ended within three months reported negative effects. The duration and quality of



relationships that are formed, largely impact the nature and value of the outcomes (DuBois, Holloway, Valentine, & Cooper, 2002).

Youth who spend more time with their mentors experience positive outcomes and are likely to indicate their mentor as a significant adult and role model in their life (DuBois & Silverthorn, 2005a). When questioning volunteer mentors from a community-based program, mentors indicated a greater perceived benefit for those youth who are in long term relationships with their mentor (DuBois & Neville, 1997). Youth in longer relationships, those between 13-19 months, report higher levels of reliability and trustworthiness of their mentor (Rhodes et al., 2005).

Mentoring programs require a large amount of preparation to be done before the program can be implemented. Identifying mentors and mentees, matching them appropriately, providing training, structure, and particular session activities and evaluating the success of the relationships can be challenging. However, mentoring programs, when properly designed can provide a wide range of benefits for all youth.

### *Benefits*

Mentoring relationships provide youth with improved social and emotional skills by creating opportunities for them to have fun and a break from everyday tasks. They also provide them with strategies for coping with their emotions in multiple situations and within themselves (Rhodes et al., 2006). Because mentors serve as role models, youth will have opportunities to witness appropriate social interactions which may lead to improvements in their own relationships (Rhodes et al.). Once youth who are participating in mentoring programs develop confidence, trust, and respect for their mentor, they may be willing to share sensitive issues that

they do not want to share with their parents or friends because of the fear of rejection (Rhodes et al.).

The utilization of mentoring programs provides evidence of positive outcomes both in school and out of school. Such benefits included improved academic achievement, fewer absences, fewer retentions, increased graduation and enrollment in post secondary education (Dappen & Isernhagen, 2006; Glomb et al., 2006; Rhodes et al., 2000). Additionally, youth also experience improved self-concept, reductions in substance abuse, fewer teen pregnancies, reduction in violence and gang membership, and enhanced relationships among families and friends (Dappen & Isernhagen; Glomb et al.; Rhodes et al.). When youth are surrounded by caring adults they may encounter school success, improved self-esteem, better mental health, and reduced substance abuse (Rhodes et al., 2002b).

Benefits associated with mentoring may include improved social skills, self-esteem, attitudes towards school, and relationships with others (Karcher, 2005; Langhout et al., 2004). Staying in school, school attendance, improved grades, increased trust in teachers and other relationships, and higher self-confidence have all been related to participation in mentoring programs (Dappen & Isernhagen, 2006). Reductions in violent outbursts and behaviors, teen pregnancy, substance abuse, and gang affiliation also have been contributed to participation in mentoring programs (Dappen & Isernhagen). Mentoring programs can result in the improvement of academic success and attendance (Whiting & Mallory) which could deter students from dropping out.

Both the mentor and the mentee should receive benefits from the mentoring relationship (Campbell-Whatley, 2001). In fact, all participants, including the mentor and the mentee, in mentoring programs will receive benefits if the program is effectively designed (Sword & Hill,

2007). Specific benefits that the mentor may experience include “increased self-esteem; feelings of accomplishment and creation of networks of volunteers; insights into childhood and adolescence; and personal gain, such as increased patience, a sense of effectiveness and acquiring new skills or knowledge” (Sword & Hill, p. 15).

After participating in the Learning Leaders mentoring program, a program for children and youth with learning disabilities and attention disorder, the parents, teachers, and youth themselves all indicated significant improvements in attitude towards school and homework completion (Glomb et al., 2006). Even mentors who participated in the Learning Leaders mentoring program reported feeling more comfortable about sharing information about their own disability and felt satisfaction for being able to give back to young children (Glomb et al.). Mentoring programs provide benefits for all of those involved with the programs.

### *Conclusion*

Shaping one’s identity for both the present and future can be positively influenced by the presence of a mentor (Rhodes et al., 2006). Mentors and roles models can provide a positive influence on the career development and social and emotional skills of individuals (Whelley et al., 2003). Mentoring relationships are more than just having a support person, they also provide opportunities for necessary skills to be taught and lessons to be learned (McDonald et al., 2007). “High quality mentoring programs can facilitate relationships and improve the lives of children” (Rhodes et al., 2002b, p. 10).

After extensive review of mentoring relationships and the benefits derived from such programs, perhaps a peer mentoring program specifically designed for students with disabilities should be a component of high school programs to provide needed supports for academic and post school success. It is likely that utilizing both a peer mentoring program and instruction in

the area of self-determination could improve students' knowledge of self-determination skills beyond just receiving instruction. The combination of these two best practices in educational success, mentoring and self-determination, has the potential of developing positive outcomes for students with disabilities.

## CHAPTER III. METHODS

Past research has indicated that specific instruction in self-determination skills, improves students' abilities to act self-determined (Sowers & Powers, 1995; Wehmeyer & Schwartz, 1997). Therefore, the purpose of this study was to examine the effects of a self-determination intervention with high school students with mild disabilities by evaluating three different conditions. The self-determination intervention consisted of 12 lessons taught by certified special education teachers working on their doctorate degrees. The lessons were from a student-directed transition planning curriculum, *Whose Future is it Anyway?* (Wehmeyer, Lawrence, Garner, Soukup, & Palmer, 2004).

This chapter discusses the design used to conduct the study, procedures used for participant selection, and the process through which data collection occurred. The independent and dependent variables are identified and the curriculum and measurement methods and materials are described and research questions are identified.

### Research Design and Method

A pretest/posttest design was used with three different group conditions to evaluate the effects of a self-determination intervention. The groups were as follows: (Group 1) participants received instruction in self-determination, (Group 2) participants received instruction in self-determination and also participated in pre-established school peer mentoring program, and (Group 3) participants received no instruction in self-determination nor participated in peer mentoring. Upon receiving informed consent and assent, participants in all three groups were

administered a 20-item multiple choice pretest. Each question addressed content covered in the 12 self-determination lessons. The responses to these questions had three possible choices and students were asked to circle one answer. After completion of the pretest students were taught 12 lessons, one each day, from the self-determination curriculum, *Whose Future is it Anyway?*

The lessons were taught by the principal investigator, a doctoral student and former special education teacher, and another special education teacher and doctoral student. The lessons were taught daily to high school students with disabilities in a special education resource classroom. The posttest was administered to the students on the twelfth day of the intervention. One week after the intervention, select members from the self-determination treatment groups participated in an interview to determine their satisfaction with instruction. Additionally, those students participating in the peer mentoring program were asked questions regarding their satisfaction with that program.

#### *Sample Selection*

The principal investigator recruited 44 participants for this study. The participants were high school students (grades 9–12) with disabilities from three high schools in southeast Alabama school systems. The high schools were chosen based on their similarities of size, race, gender, and free and reduced lunch. See Table 1 for each of these school systems' characteristics and comparability to each other (Alabama State Department of Education website, 2007–2008).

Table 1

*Participating High Schools' Demographics*

Characteristics	School System 1	School System 2	School System 3
School Population (grades K–12)	5,811	4,137	4,091
High School Population (grades 9–12)	1,528 (26.3%)	1,310 (31.6%)	1,179 (28.8%)
Females (grades 9–12)	797 (52.2%)	665 (50.8%)	598 (50.7%)
Males (grades 9–12)	731 (47.8%)	645 (49.2%)	581 (49.3%)
African-American (grades 9–12)	1,022 (66.9%)	803 (61.3%)	640 (54.3%)
Caucasian (grades 9–12)	465 (30.4%)	463 (35.3%)	532 (45.1%)
Other (grades 9–12)	41 (.27%)	44 (.33%)	7 (.06%)
Free and reduced lunch (grades 9–12)	3,878 (66.7%)	2,425 (58.6%)	2,682 (65.6%)

The school system implementing the peer mentoring program was purposely chosen so additional effects of peer mentoring could be examined. The other two school systems were selected because of their similar characteristics. Once the school systems were selected, the special education coordinator of each school system was contacted for permission to conduct research in the schools.

After the schools were identified, special education teachers from each of the three high schools were asked to select 20 students based grade level (9–12 grade) and disability (mild). The students identified for participation were given consent forms and informational flyers to take home to their parents. The consent forms included the principal investigator's telephone number so that questions and concerns could be addressed. One parent contacted the principal

investigator for clarification of the study. In all, 23 students from school system one, 12 students from school system two, and nine students from school system three returned their signed informed consent.

All of the participants in the study were currently receiving special education services under the Individuals with Disabilities Education Improvement Act (IDEIA, 2004) and the Alabama Administrative Code (SUPP. NO. 07-2. 290-8-9.03). All of the students were considered to have mild disabilities, including learning disabilities, mild mental retardation, other health impairments, visual or hearing impairments, or autism spectrum disorders.

Participants selected for this study had to meet the following criteria:

**Grade** — All participants in the study were attending high school in grades 9<sup>th</sup> through 12<sup>th</sup>. The grade criterion was determined appropriate because of the federal requirement under IDEIA to address transition services begin no later than age 16. Under those services students' interests, needs, preferences, and strengths must be taken into consideration.

**Disability** — Participants in the study all received special education services under IDEIA. For this study, the disability categories to be included were: learning disabilities, mild mental retardation, other health impairment, visual or hearing impairments, or autism spectrum disorders. The disability criteria were defined by the Alabama Administrative Code.



Table 2

*Participant Selection based on Criteria*

N students per grade	9 <sup>th</sup> grade	Disability Type	10 <sup>th</sup> grade	Disability Type	11 <sup>th</sup> grade	Disability Type	12 <sup>th</sup> grade	Disability Type	Total Disability Count
N student	2	MR	5	MR	8	MR	2	MR	17 (38.6%)
disabilities	2	OHI	1	OHI	1	OHI		OHI	4 (9%)
	3	SLD	8	SLD	6	SLD	3	SLD	20 (45.4%)
		AU		AU	2	AU		AU	2 (4.5%)
		VI		VI		VI	1	VI	1 (2.2%)
Total	7		14		17		6		44
	(15.9%)		(31.8%)		(38.6%)		(13.6%)		

This study used groups that were already formed because the participants were high school students attending their neighborhood schools and were already placed in their daily academic schedules. Students were identified if they participated in a transition elective course designed to prepare students for their transition to post-school, or if they attended class in a resource setting. This was not a set criterion but was the most common way for teachers to identify students for participation. It was imperative to both the principal investigator and school administrators that students remain in their content classes. Using special education teachers at each of the schools was beneficial for participant identification because of their role in the school and their full access to student schedules.

#### *Group Formation*

This study used three different condition groups to examine the effects of a self-determination intervention. Two of the groups were treatment groups and the other group was a control group. The two treatment groups both participated in a self-determination intervention, using 12 lessons from *Whose Future is it Anyway?* curriculum. The difference between the two treatment groups was that one of the groups, in addition to receiving the self-determination intervention, was comprised of students who were participating in a pre-established peer mentoring program at their high school. The peer mentoring program had been in place for approximately seven months prior to the beginning of this study. The mentor pairs had been assigned by their special education teacher based on criteria such as gender, grade level, disability, and interests.

The three groups in this study were organized accordingly: (1) self-determination intervention, (2) self-determination intervention including participants from a peer mentoring program, and (3) control group which received no intervention or participated in peer mentoring.

Group formation was not dependent on school system but rather the characteristics described above. The self-determination intervention groups were comprised of students from school systems one and two. In addition, some of the students from school two were involved in a peer mentoring program. Therefore, school two had students participating in Group 1 and Group 2. More specifically, school system 2 had a total of 12 participants. Five students comprised Group 2 and seven were added to Group 1 (see Table 3).

Table 3

*Group Formation*

	School System 1 (N = 23)	School System 2 (N = 12)	School System 3 (N = 9)	Total N Per Group
<b>Group 1</b>	23	7	0	30
Self-determination intervention				
<b>Group 2</b>	0	5	0	5
Self-determination intervention and peer mentoring				
<b>Group 3</b>			9	9
No intervention or peer mentoring				

## Independent Variables

### *Self-Determination Intervention*

Student participation in planning for their futures has been identified as a best practice for improving post school outcomes for students with disabilities (Wehmeyer & Kelchner, 1996; Zhang, 2005). However, becoming active participants in the planning process is most successful when students are self-determined (Martin et al., 2006) and have knowledge of several prerequisite skills including decision-making and goal setting. *Whose Future is it Anyway?* was specifically chosen for the intervention method in this study because the skills addressed in this curriculum have been identified as being common skills taught to improve self-determination (Thoma et al., 2008). For example, lessons focus on teaching students about decision-making, goal-setting, self-advocacy, and problem solving (Wehmeyer, 2001). The primary purpose of this curriculum is to teach students needed skills to participate in their transition planning process. The authors describe three beliefs upon which the *Whose Future is it Anyway?* curriculum is based:

(1) students who are involved in planning for their future will more likely be full participants in the planned educational activities resulting from that plan, (2) students of all abilities can learn the skills to be involved; and (3) students who believe that their voice will be heard will be more likely to participate in the planning process and ongoing educational decisions. (Wehmeyer, Lawrence, Garner, Soukup, & Palmer, 2004, p. 4)

Permission for use of this curriculum was granted by the copyright holder and is available on-line at the Zarrow Center for Learning Enrichment, University of Oklahoma. The materials are free to use and include a Coach's Guide and six sections of content lessons. The Coach's Guide is similar to a typical teacher's manual available with most curriculum materials. The

Coach's Guide provides specific instructions on how to use the materials, expected outcomes, tips for involving students, as well as suggestions for preparation of each lesson. The term "coach" is used to describe several roles by which the material may be taught, including facilitator, instructor, and advocate. There are times when the "coach" may need to act as an instructor by directing and providing information, or assume a facilitator role by providing guidance. Finally, an advocate role might be used to demonstrate belief in student success.

The curriculum is divided into six sections and each section consists of six sessions. All of the lessons are scripted, that is, the lessons are read word for word. Each session begins with an individual "Whose Future Goal" and ends with a review of the session. The lessons range in length, from six to 14 pages. The materials in this curriculum are intended for students ages 14 through 21 and may be modified for particular student needs. Picture cue icons are used throughout the lesson to catch the students' attention and prompt students to what is happening next. Table 4 displays the specific skills and areas addressed in each of the sections.

Table 4

*Organization of Whose Future is it Anyway?*

Section	Section 1: Getting to know you	Section 2: Making Decisions	Section 3: How to Get What You Need, Sec. 101	Section 4: Goals, Objectives, and the Future	Section 5: Communicating	Section 6: Thank You, Honorable Chairperson
Sessions	1: The planning meeting	7: Introduction to DO IT!	13: Community resources in your plan	19: Identifying goals in your plan	25: Communicating in small groups	31: Different kinds of meetings
	2: Choosing people to attend	8: Steps 1 & 2 of DO IT!	14: Community resources for work	20: Identifying goals for work	26: Body language and assertiveness	32: Steps to planning a meeting
	3: Your preferences and interests	9: Steps 3 & 4 of DO IT!	15: Community resources for more school	21: Identifying goals for more school	27: Advocating and appealing	33: Being a good team member
	4: Disabilities	10: Using DO IT!	16: Community resources for living	22: Identifying goals for living	28: Timing and persuasion	34: Managing the meeting
	5: Your unique learning needs	11: Real life stories to use DO IT!	17: Community resources for fun	23: Identifying goals for fun	29: Keeping your ideas out there	35: Sessions 1-18 review
	6: Supports	12: Giving Informed Consent	18: Community resources you want	24: Keeping track of your goals	30: Listening and the team	36: Sessions 19-34 review

The Coach’s Guide includes an option for specific skills to be chosen to meet individual student needs and targeted skills. In other words, flexibility is allowed for selection of lessons to address certain goals. To meet the purpose of this study lessons focusing on decision-making and goal-setting were selected as two critical areas needed for improving self-determination skills. The two selections of this curriculum selected for the intervention were Section 2: Making Decisions and Section 4: Goals, Objectives, and the Future. Each of the daily goals is provided in the Table 5 for the two sections that were selected for this study.

Table 5

*Section 2 and Section 4 Daily Goals*

Section 2: Making Decisions	Whose Future Goal	Section 4: Goals, Objectives, and the Future	Whose Future Goal
7: Introduction to DO IT!	You will learn to make decisions using DO IT!	19: Identifying goals in your plan	You will identify goals and objectives on your IEP
8: Steps 1 & 2 of DO IT!	You will learn to make decisions using DO IT!	20: Identifying goals for work	You will identify goals for vocational and employment outcomes
9: Steps 3 & 4 of DO IT!	You will learn to make decisions using DO IT!	21: Identifying goals for more school	You will identify goals for post-secondary education outcomes
10: Using DO IT!	You will learn to make decisions using DO IT!	22: Identifying goals for living	You will identify goals for residential living outcomes
11: Real life stories to use DO IT!	You will learn to make decisions using DO IT!	23: Identifying goals for fun	You will identify goals for recreational and leisure time outcomes
12: Giving Informed Consent	You will learn how to give informed consent	24: Keeping track of your goals	You will learn to keep track of goals and objectives

Doctoral students in special education with at least 4 years experience teaching students with disabilities administered the intervention treatment for Groups 1 and 2. As mentioned

before, the Coach's Guide indicates that the individuals teaching the lessons from *Whose Future is it Anyway?* may assume multiple roles, including facilitator, instructor, and advocate.

However, to keep the intervention as similar as possible across the groups, the instructor role was assumed to deliver the daily lessons in each intervention group. That is, instructors led the students through activities by reading the lessons out loud and providing answers to questions as they were asked.

#### *Additional Condition Present for Treatment Group 2*

The peer mentoring program was an already established program in which the principal investigator did not manipulate or adjust for the purposes of this study. In addition to receiving the self-determination intervention, Group 2 was comprised of students who were involved in the school's peer mentoring program. The peer mentoring program was created seven months prior to the implementation of the current study. This program was developed by the school's transition special education teacher in an effort to provide students with a mentor who had a similar disability and shared common life experiences. The program provided students with interaction activities with their mentor/mentee one time each week during lunch. Participation in the program was voluntary. Students in this mentoring program were matched on several characteristics and interests.

#### Dependent Measures

##### *Whose Future Survey*

The *Whose Future Survey* (Appendix 1) was used as the pretest and posttest to assess students' level of self-determination. This survey was developed by Wehmeyer and Lawrence (1995) to evaluate the effectiveness of the student-directed transition planning process, *Whose Future is it Anyway?*. In its original format, the survey contains 20 skill and knowledge items



that are directly related to the material covered in the curriculum. Wehmeyer et al. (2007) conducted a factor analysis using a principal components analysis and indicated that criterion for inclusion was a factor loading of .30 and at least three items were needed to establish a sound theme.

Questions included in the *Whose Future Survey* address decision-making, goal setting, general Individualized Education Programs (IEP) questions, and self-advocacy (Wehmeyer et al., 2007). Because this study only addressed two sections of the curriculum, Section 2: Making Decisions and Section 4: Goals, Objectives, and the Future, the *Whose Future Survey* was adapted by the principal investigator so that the questions were specific only to the sections taught during this intervention. Of the 20 multiple choice items, the principal investigator replaced 9 questions with ones that were covered in the two sections that were being covered during this intervention. However, some of the questions that were more general to IEPs, transition, and advocacy remained. The nine original questions and the questions created specifically for this intervention can be found in Appendix 2. Below are two examples of items found in the *Whose Future Survey* that were also included in the pretest and posttest for this study.

Examples include:

1. Decision-making is:
  - a. A one step deal
  - b. A multi-step process
  - c. For other people
2. Something you aim for or set out to do is:
  - a. A decision

- b. A resource
- c. A goal

Directions for completing the survey were printed and read out loud to students prior to completing the survey. Each question and corresponding multiple choice options were read to the group or completed individually, if they chose. The principal investigator added five demographic questions to the end of the survey including, grade, gender, age, ethnicity, and disability. The demographic information was verified with the classroom teacher after completion of the posttest.

#### *Whose Future is it Anyway? Satisfaction Interview*

Six days after the conclusion of the study, the intervention instructors returned to each of the treatment groups to obtain participant feedback. The purpose of the interview was to identify which components, if any, students enjoyed and learned during the *Whose Future is it Anyway?* instruction. The classroom teachers for these students were asked to identify five students to answer the interview questions. The intervention instructors sat in desks facing a selected student either in the back of a quiet classroom or in the hallway. Questions were asked and notes on students' responses were written. This interview lasted approximately eight minutes per student.

This satisfaction protocol consisted of 6 open-ended questions developed to gain Groups 1 and 2 participants' perspectives of the *Whose Future is it Anyway?* intervention. The questions were developed by the principal investigator and are as follows:

1. Tell me about the *Whose Future is it Anyway?* study that you participated in.
2. Would you like to always participate in a project like *Whose Future is it Anyway?*
3. What kind of things did you do in the *Whose Future is it Anyway?* study?

4. Do you feel you have changed or learned anything new since participating in the study?
5. What have been your favorite things about the *Whose Future is it Anyway?* study?
6. Describe any dislikes or how the project could be better.

#### *Mentoring Program Satisfaction Interview*

The mentoring program interview was conducted following the same procedures as the *Whose Future is It Anyway* satisfaction interview. The mentoring program interview lasted approximately eight minutes per student and was conducted by the intervention teachers. This interview was only completed with Group 2 participants because they were involved in the school's mentoring program. The interview protocol included 6 open-ended questions examining the participants' perspectives of working with a peer mentor. The purpose of the interview was to identify which components, if any, students enjoyed about having a peer mentor. The questions were as follows:

1. Tell me about the mentoring program that you participate in.
2. How often do you see your mentor/mentee? Only in mentoring sessions or in other areas of the school?
3. What kind of things do you do with your mentor/mentee?
4. Do you feel you have changed or learned anything new since having a mentor/mentee?
5. What have been your favorite things about having a mentor/mentee?
6. Describe any dislikes or how the project could be better.

## Intervention

The timeline for this research study was six weeks. All tasks, including preparation days, pretest administration, intervention days, posttest administration, and follow-up interviews were completed during those six weeks. Specifically, the intervention and administration of the pretest and posttest, which involved instruction to students with disabilities, lasted 12 days. See Appendix 3 for the timeline used for implementation of this study.

### *Preparation Days (Day 1–11)*

*Informational meeting.* Upon approval by the Internal Review Board for the Protection of Human Subjects in Research (IRB) for the proposed study, the principal investigator contacted the identified special education teachers at each of the schools through email. The teachers were identified by their special education coordinator based on their role of working with high school students with disabilities. In the email correspondences, the teachers were provided with biographical information of the researcher, the purpose of the study, and teacher responsibilities for organizing and scheduling students for participation in the study. After the teachers responded that they would assist with the study, on-site meeting times were scheduled. The principal investigator visited each of the schools and met with the teachers participating in the study. These meetings were held at the school site either in the school office, classroom, or empty lunch room. The meetings lasted approximately 45 minutes.

During that time the teachers were provided (a) an overview and a schedule of the intervention, both verbally and written, (b) their roles for participating in the study, (c) explanations about the student criterion for participation in the study, and (d) the process through which informed parental consent and student assent would be collected. Teachers were also given an opportunity to ask questions. At the conclusion of the informational meetings, the

principal investigator provided the teacher with folders to be distributed to the identified students for participation. The folders contained the informational flyer, schedule of the intervention, parental informed consent and student assent, and a sealable envelope to be used to return the signed parental consent forms and student assent.

*Student identification.* Special education teachers at each of the schools were asked to select 20 students for participation in this study based on given criteria. The participant criteria, grade level and disability had been provided to the teachers using email correspondence and written and verbal descriptions during the informational meetings. An additional component that played a role in student identification was student schedules. Because it was important to keep students in their general education classes, scheduling influenced the selection of participants.

One teacher chose students who were participating in her first block transition elective course, a course specifically aimed at addressing skills needed for life after school. Additionally, she recruited students from a resource English class, a class for students with disabilities which moves at a slower pace and implements more specific learning strategies than a general education class. Another teacher chose students from her resource math class and similar to the other teacher, she included students from several other resource classes for participation.

The 12 day intervention was conducted during a regularly scheduled class and therefore, students who did not meet the criteria for participation in the study or who did not return a completed consent form, were included in the intervention; however, their information was not used in the data analysis. The selection of the students who were in the control group was not based upon class schedules but was based upon those students who met the participant criteria and returned their consent forms. They would only need to be available for 30 minutes, two times, during the entire study to complete the pretest and posttest.

*Student informed consent and assent.* Once students had been identified, the teachers sent an informational flyer, schedule of the intervention, informed consent and student assent form to the parents of the identified participants. These materials were sent home with the students and teachers were asked by the principal investigator to explain the study to the students, ask them to review the materials with their parents, and bring back a signed consent form if they would like to participate. The estimated time for materials to be returned was two weeks. However, all three groups had a school wide spring break for one of the two weeks. Because this study was scheduled near the end of the school year, there was no time to extend the deadline for returning signed consent forms. Otherwise the school year would have ended before the intervention. The teachers provided daily reminders for the students to decide whether they would participate and then to return their materials.

The principal investigator gathered the materials (informed parental consent and student assent) from the special education teacher three days prior to beginning the intervention so that codes could be assigned to the participants and materials could be labeled. The principal investigator created a code list by writing a student's name, after opening the returned envelope which contained a signed informed consent form and assent, next to a specific code that was unique to each school system. The signed consent forms were then placed into a locked file cabinet and the code list was stored in a separate cabinet. Because all of the materials used during this study were labeled with codes and were collected and redistributed each day, a copy of the code list was brought by the researchers to the intervention site daily. The code list was then locked away at the end of each lesson.

*Training of key personnel.* There were two individuals, or intervention instructors, responsible for implementing the self-determination intervention, the 12 lessons. One of the

individuals was the principal investigator and the other was another graduate student. The principal investigator has extensive knowledge of the *Whose Future is it Anyway?* curriculum through literature review and, therefore, trained the other graduate student in implementation procedures. These two individuals were both third year doctoral students in special education with four and five years experience teaching students with disabilities at the secondary level. They had completed the Collaborative Institutional Training Initiative (CITI) as described by the Auburn University Institutional Review Board and Department of Health and Human Services, which is to ensure the protection of human subjects. In addition to being in the doctoral program together, both of these individuals graduated from the same bachelor's program in special education in 2001.

	Principal Investigator	Graduate Student
Characteristics		
Age	30	30
Ethnicity	White	White
Gender	Female	Female
Education	B.S. (2001) Auburn University Mild Learning and Behavior Disorders M.Ed.(2004) University of South Alabama, Special Education Ed.S. (2006) University of South Alabama, Special Education Ph.D (current) Auburn University, Special Education (Transition)	B.S. (2001) Auburn University Mild Learning and Behavior Disorders M.Ed.(2004) Auburn University Special Education Ph.D (current) Auburn University, Special Education (Transition)

	Principal Investigator	Graduate Student
Certification	Educational Administration: P-12 (2008) Auburn University	Educational Administration: P-12 (2008) Auburn University
Teaching Experience	5 years Middle School	4 years High School

The intervention instructors met three days prior to beginning the intervention for two hours to discuss the intervention. Each had a large three ring binder which included the pretests and posttests, Coach’s Guide, all 12 lessons separated by dividers, and a code list. During the two hour meeting, the principal investigator described the process of distributing and collecting materials, administration of the pretests and posttests, the format of the curriculum and each individual lesson. The intervention instructors read Section 2: Session 7 out loud to familiarize themselves with the curriculum. They also read the Coach’s Guide and identified teaching strategies to be used. Because both of these individuals have experience as classroom teachers, they implemented the following teaching strategies:

- Proximity — They would circulate the room as the lesson was read.
- Questioning — They would ask students questions to activate background knowledge.
- Feedback — Students would receive feedback from their responses.
- Participation — Students could volunteer to read, answer questions, and tell short stories.

After the initial two hour meeting, each subsequent lesson was reviewed on an individual basis and then discussed briefly over the telephone, if there were any questions or concerns.



Additionally, two other key personnel participated in conducting the fidelity of treatment observations. Both of these individuals observed each of the instructors on two separate occasions. The day before the observations, the principal investigator sent the observation form to the key personnel to review. Directions were written on the observation form.

*Pretest Administration (Day 12 Treatment Groups, Day 16 Control Group)*

On the first day of the scheduled intervention, the pretest, *Whose Future Survey*, was given to the participants of the treatment groups. The pretests were administered to the participants in a group setting, in a classroom at their high school, by the intervention instructors. The assessment was a four page paper document with 20 multiple choice items and labeled with the students' codes. Each item and the three possible responses were read out loud by the intervention instructors. Students completed the pretests with either a pen or pencil. At the end of the pretests, students completed the demographic questions. The five areas, grade, age, gender, ethnicity, and disability were listed in a table and asked students to either circle or write their response. If a student indicated that they did not know something in the demographic section, they were told that the teacher would complete that information. Most often, students did not know their disability.

The pretests for the control group were administered one week later. The pretests were given to the participants in a small group or one-on-one setting, in a classroom at their high school by the principal investigator. Students in this group were called from their regularly scheduled classes to complete the pretest. Students either requested to read the test on their own or requested the principal investigator to read it to them.

Once all the pretests were administered, the principal investigator scored the pretests and then entered those scores into the Statistical Package for Social Sciences (SPSS) version 16.0, a

computer software program, on password protected computer for later analysis. Hard copies of the assessments, which were labeled by unidentifiable student codes, were stored in a locked file cabinet.

### *Intervention Days (Day 12–23)*

*Intervention.* On the first day of intervention, the instructors arrived to their assigned schools with their three ring binders as well as the coded student packets for each participant. After the administration of the pretest, as described above, the instructors introduced themselves and the study using a script that had been created by the principal investigator (Appendix 4). Instructional materials were then distributed.

The first section to be taught, Section 2, was distributed to students as stapled packet of approximately 50 pages. This packet contained the first six sessions to be covered. Each individual lesson was approximately 8 pages in length. Many picture cues were used, including a talking mouth, which indicated the starting point of the lesson. Also, occasionally a different shade of gray was used to highlight important information and font size and style changed to illustrate a point more clearly. Each of the packets contained the students' assigned codes. They were collected each day, stored at the teachers' desk, and distributed again at the beginning of the next session. The instructors used the code list, which identified the students' names and code number, to hand out the packets each day. After Section 2 was completed, Section 4 was administered in the same manner.

During the intervention, students were seated in desks around the classroom. The classroom teachers remained at their desks during the lessons. The instructors began in the front of the classroom and then moved around to adjust proximity to the students to manage student behavior and encourage participation. Each day the students were told what lesson would be

taught and what page to turn to before beginning. The instructor would start by reading the lesson and then use the teaching strategies as described above throughout the lesson. Many of the lessons included a written component for the students to complete. This was not a requirement but the students were encouraged to write their responses. On most occasions, the class completed the written sections orally as a group.

Every lesson concluded with a review that covered the material that had just been taught. The instructors would read the questions out loud and either individual students would answer or the class as a whole would respond. After the day's lesson was complete and materials were collected, the students were given a snack approved by the school.

Because the principal investigator did not begin with Session 1, there were several occasions when the principal investigator had to make adjustments. For example, the *Whose Future is it Anyway?* curriculum suggests that students request their Individualized Education Programs (IEP) from their teachers to review their post school goals. Instead of including this component, the principal investigator created several sample post school goals (Appendix 5) that the intervention groups reviewed together as a whole group. That is, everyone was using the same post school goals to answer questions that *Whose Future is it Anyway?* proposed. These goals were used throughout the intervention, as most lessons required students to reflect back on the post school goals. Upon completion of the study, the packets the students used were stored at the Auburn Transition Leadership Institute, but were not used for data analysis.

*Fidelity of treatment.* During the intervention, two individuals with Doctorate of Philosophy degrees in special education obtained from the same university, observed two sessions across treatment groups. The sessions observed for each treatment group, were Section 2: Session 10—*Using DO IT!* and Section 4: Session 20—*Identifying Goals for Work*. The

observations, developed by the principal investigator, were used to identify the degree to which the interventions were being implemented similarly at each setting (Appendix 6).

The observations were created individually to match the lesson that would be taught each day. For example, specific questions were asked that were only related to the assigned lesson as mentioned above. Information that was listed on each of the forms was the rater's name, date, start and end time of the lesson, and number of students. Then, the form was divided into two sections, teacher behavior and student behavior. The teacher behavior section asked if certain tasks were completed, yes or no, and some asked to what degree, always, sometimes, never. The observers circled their response. The student behavior section was a momentary time sampling in which the observers indicated the student behavior every three minutes. The behaviors were as follows:

- Active participation—student answering and communicating with instructor
- Student work—students working independently
- Group work—students are working together in groups

Each of the observers went to a different location for each of the observations.

Observation one occurred on day 15 at both settings and observation two was completed on day 19 at both settings. Each observer completed one observation at each setting.

#### *Posttest Administration*

*Posttests administered.* Upon completion of the 12<sup>th</sup> day of intervention, posttests were given to the participants in the treatment groups. The posttests were administered to the participants in the same manner as the pretests. Students were in a group setting, in a classroom at their high school, and the assessment was given by the intervention instructors. The assessment was the same 20 multiple choice item, *Whose Future Survey* used for the pretest, and

labeled with the students' codes. Each item and the three possible responses were read out loud. Students completed the pretests with either a pen or pencil.

The posttests for the control group were administered one week later. The posttests were administered to the participants in the same manner as the pretests. Participants were in a small group or one-on-one setting, in a classroom at their high school, and the assessments were given by the principal investigator. Students in this group were called from their regularly scheduled classes to complete the posttest. Students either requested to read the test on their own or requested the principal investigator to read it to them. The principal investigator scored the posttests and then entered those scores into SPSS on password protected computer for later analysis. Hard copies of the assessments, which were labeled by unidentifiable student codes, were stored in a locked file cabinet.

#### *Follow-up Interviews (Day 29)*

*Interviews conducted.* At the completion of the intervention and after posttests had been administered to the treatment groups, the two instructors who had implemented the lessons returned to the schools to interview students for follow-up information (Appendix 7). Five participants from each treatment group were selected to answer five questions about the *Whose Future is it Anyway?* instruction. The participants were selected by the classroom teachers. The purpose of the interview was to identify which components, if any, students enjoyed and learned from during the *Whose Future is it Anyway?* study. The instructors and the selected student sat in student desks either in the hallway or in the back of the classroom. The interview questions were asked and notes were taken from student responses.

Following the same procedures, the instructors interviewed the five students in Group 2 using the mentoring program questionnaire. The purpose of this interview was to determine

student satisfaction with their peer mentoring program and to gain an insight into the components of the program that students liked or disliked. The interview questions were asked and notes were taken from student responses. The interview responses were typed into a word document on a password protected computer for later analysis and the hard copies were stored in a locked file cabinet.

### Data Analysis

The pretest and posttest data were examined to determine if there were any significant differences between the three group conditions, (Group 1) self-determination intervention, (Group 2) self-determination intervention and participation in peer mentoring program, and (Group 3) no self-determination intervention or peer mentoring program, on level of self-determination using a 3 x (2) mixed analysis of variance (ANOVA). The purpose of this analysis was to test for significant group differences on level of self-determination by evaluating three different conditions over time. The three levels of the independent variable were: self-determination intervention, self-determination intervention and participation in peer mentoring, and no self-determination intervention or peer mentoring. The two levels of the dependent variable were: pretest and posttest.

Next, 2 x (2) mixed ANOVAs were conducted to determine whether there were significant differences or interaction effects between two group conditions. That is, Group 1 x Group 3, Group 2 x Group 3, and Group 2 x Group 1. The following research questions were examined:

1. Is there a difference in decision-making and goal-setting knowledge and skills between students who receive self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum, students who participate in peer mentor activities and receive

self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum, and students who do not receive self-determination instruction (Group 1 x Group 2 x Group 3)?

2. Do students who receive self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum have greater decision-making and goal-setting knowledge and skills than those students who do not receive instruction (Group 1 x Group 3)?

3. Do students who participate in peer mentor activities receive and receive self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum have greater decision-making and goal-setting knowledge and skills than those students who receive no self-determination instruction (Group 2 x Group 3)?

4. Do students who participate in peer mentor activities and receive self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* Curriculum have greater decision-making and goal-setting knowledge and skills than those students who receive only self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum (Group 2 x Group 1)?

5. Do students who have specific learning disabilities have greater decision-making and goal-setting knowledge and skills after participating in self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum (Group 1, Specific Learning Disability)?

Descriptive statistics were used to describe the sample demographic information, including gender, grade, age, ethnicity, and disability. Descriptive statistics were also used to report information about items from the pretest and posttest, the *Whose Future is it Anyway?* survey. Finally, the interview protocol responses were coded into themes and student quotes were reported.

### *Null Hypotheses*

The overall purpose of this study, to evaluate the effectiveness of three conditions used to teach self-determination skills to high school students with mild disabilities and the three research questions stated above were answered through specific null hypotheses.

$H\emptyset_1$ : There is no significant difference between treatment groups on level of self-determination.

$H\emptyset_2$ : There is no difference between levels of self-determination for students who receive instruction in self-determination than those students who do not receive instruction in self-determination (Group 1 X Group 3).

$H\emptyset_3$ : There is no difference between level of self-determination for those students who receive instruction in self-determination and participate in peer mentor activities than those students who receive no instruction (Group 2 x Group 3).

$H\emptyset_4$ : There is no difference between level of self-determination for students who receive instruction in self-determination and participate in peer mentor activities than those students who receive only instruction in self-determination (Group 2 x Group 1).

$H\emptyset_5$ : There is no change in level of self-determination for those students with specific learning disabilities who receive instruction in self-determination.

### Summary

This chapter described the research methodology used in this study. Procedures for recruiting schools and participants were discussed and a thorough description of the materials used in the study was provided. The intervention schedule was illustrated and steps for conducting this study were provided. Finally, the research questions and hypotheses were presented and the data collection protocols and methods for data analysis were explained.



## CHAPTER IV. RESULTS

The results of the data analyses for this study are presented in this chapter. The participant sample is described and specific demographics of each treatment group are displayed. Next, the pretest and posttest scores from the curriculum-based measurement used to evaluate participants' level of self-determination are presented. A 3 x (2) mixed analysis of variance is presented to determine group differences. Following the pretest and posttest scores, each research question is displayed and the results of statistical analysis will follow. Finally, common themes found in the participant interview are presented. The conclusion of this chapter identifies additional research questions formed by the researcher during the statistical analysis and results from those questions will be displayed.

The participants (44) in this study were high school students with mild disabilities from three southeast Alabama school systems. There were 21 females (47.7%) and 23 males (52.3%) participating in the study. Seven students were in ninth grade (15.9%), 14 in tenth grade (31.8%), 17 in eleventh grade (38.6%), and six students were in twelfth grade (13.6%). The age range was 15 years to 19 years with an average age of 16.77 years. The age group consisting of the fewest number of students was 19 years (9.1%), followed by 15 years (15.9%). The largest age group of students was 16 year olds (29.5%), then 17 years (25%), and 18 years (20.5%). There were three ethnic groups represented in this sample, African-American, Caucasian, and Hispanic. Twenty-six students were African-American (59.1%), 17 students were Caucasian (38.6%), and one student was Hispanic (2.3%).

All of the students participating in this study were identified as having a disability as defined by the Individuals with Disabilities Education Improvement Act (IDEIA, 2004). Under IDEIA there are 13 disability categories, of which five were present in this sample. The five disabilities were autism (AU) (4.5%), mental retardation (MR) (38.6%), other health impairment (OHI) (9.1%), specific learning disability (SLD) (45.5%), and visual impairment (VI) (2.3%). Table 6 presents the grade, age, ethnicity, and disability.

Table 6  
*Students' Demographic Information*

Characteristics	N (%)
<b>Gender</b>	
Female	21 (47.7%)
Male	23 (52.3%)
<b>Grade</b>	
9 <sup>th</sup> grade	7 (15.9%)
10 <sup>th</sup> grade	14 (31.8%)
11 <sup>th</sup> grade	17 (38.6%)
12 <sup>th</sup> grade	6 (13.6%)
<b>Age</b>	
15	7 (15.9%)
16	13 (29.5%)
17	11 (25%)

(table continues)

Table 6 (continued)

Characteristics	N (%)
Age	
18	9 (20.5%)
19	4 (9.1%)
Ethnicity	
African-American	26 (59.1%)
Caucasian	17 (38.6%)
Hispanic	1 (2.3%)
Disability	
Autism	2 (4.5%)
Mental Retardation	17 (38.6%)
Other Health Impairment	4 (9.1%)
Specific Learning Disability	20 (45.5%)
Visual Impairment	1 (2.3%)

Each treatment group was administered the pretest prior to the intervention to examine differences between each of the three conditions: (Group 1) self-determination instruction, (Group 2) self-determination instruction and participation in mentoring program, and (Group 3) no instruction or mentoring. Table 7 displays the demographics for each group including gender, grade, age, ethnicity, and disability.

Table 7

*Students' Demographics by Intervention Group*

Group 1 (N = 30, 68.1%)		Group 2 (n = 5, 11.3%)		Group 3 (n = 9, 20.5%)	
Characteristics	N (%)	Characteristics	N (%)	Characteristics	N (%)
<b>Gender</b>					
Female	15 (50%)	Female	3 (60%)	Female	3 (33.3%)
Male	15 (50%)	Male	2 (40%)	Male	6 (66.6%)
<b>Grade</b>					
9 <sup>th</sup>	3 (10%)	9 <sup>th</sup>	1 (20%)	9 <sup>th</sup>	3(33.3%)
10 <sup>th</sup>	9 (30%)	10 <sup>th</sup>	2(40%)	10 <sup>th</sup>	3(33.3%)
11 <sup>th</sup>	16 (53.3%)	11 <sup>th</sup>	1 (20%)	11 <sup>th</sup>	0
12 <sup>th</sup>	2 (6.6%)	12 <sup>th</sup>	1(20%)	12 <sup>th</sup>	3(33.3%)
<b>Age</b>					
15	5 (16.6%)	15	1(20%)	15	1(11.1%)
16	6 (20%)	16	2 (40%)	16	5
17	10 (33.3%)	17	1(20%)	17	0
18	7 (23.3%)	18	1(20%)	18	1(11.1%)
19	2 (6.6%)	19	0	19	2 (22.2%)
<b>Ethnicity</b>					
African-American	20 (66.6%)	African-American	4 (80%)	African-American	2(22.2%)
Caucasian	9 (30%)	Caucasian	1(20%)	Caucasian	7 (77.7%)
Hispanic	1 (3%)	Hispanic	0	Hispanic	0
<b>Disability</b>					
AU	2 (6.6%)	AU	0	AU	0
MR	12 (40%)	MR	5 (100%)	MR	0
OHI	1 (3%)	OHI	0	OHI	3(33.3%)
SLD	15 (50%)	SLD	0	SLD	5 (55.5%)
VI	0	VI	0	VI	1(11.1%)

## Research Questions, Hypotheses, and Statistical Analysis

The data analyzed in this section includes the participants' scores on the curriculum-based measurement used for the pretest and posttest. First each group's scores are displayed using mean scores (*M*) and standard deviations (*SD*). A mixed analysis of variance (ANOVA) to test for differences between groups is presented followed by the results for each null hypothesis, derived from the research questions. Table 8 displays the mean score and the standard deviations for each group.

Table 8

*Pretest and Posttest Scores by Group*

	Group 1 (n = 30)		Group 2 (n = 5)		Group 3 (n = 9)		ANOVA	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>P</i>
Pretest	11.43	3.28	11.20	3.27	15.00	2.78	4.582	.016
Posttest	13.57	3.66	14.00	3.24	14.22	3.11	.134	.875

M = mean, SD = standard deviation, F = F ratio, and P = significance level

The three treatment groups were examined to look for differences before the intervention using the pretest scores. A one-way ANOVA procedure was used and found significant differences between treatment groups  $F = 4.582, p < .05$ . Post hoc tests revealed those differences to be between Group 1 and Group 3. Both treatment groups, Group 1 and 2, scored below the control group on the pretest. Similarly, the ANOVA procedure was used to examine group differences on posttest scores and found no significant differences between treatment groups  $F = .134, p > .05$ .

## Overall Purpose

To test the significance of group differences, a 3 x (2) mixed ANOVA was used. This analysis answered the overall purpose of this study, which was to examine the effects of a self-determination intervention on high school students with mild disabilities by evaluating three different conditions from pretest to posttest. The independent variable, the self-determination intervention had 3 levels (Group 1-self-determination intervention, Group 2-self-determination intervention and peer mentoring, and Group 3-no self-determination or peer mentoring). Each of the three groups of students was assessed at two points in time. The dependent variable, the curriculum-based survey, *Whose Future is it Anyway?*, was administered both as a pre-test and a post-test.

### *Research Question 1*

$H_0$ : There is no significant difference between treatment groups on level of self-determination.

Null hypothesis one was partially rejected. While there was a difference over time in self-determination, this change did not vary by group as the interaction effect of level of self-determination by treatment group was not statistically significant  $F(2, 43) = 2.88, p > .05$ . Overall, participants increased their level of self-determination over time ( $F(1, 43) = 4.34, p < .05$ , partial  $\eta^2 = .10$ ). These results are displayed in Table 9.

Table 9

*3 X (2) ANOVA Results for Overall Purpose of the Study*

Measure	<i>F</i>	<i>P</i>	$\eta^2$
Between-Subjects Effects			
	1.878	.166	.084
Within-Subjects Effects			
Time (pre/post)	4.338	.044	.096
Time by Group Interaction	2.882	.067	.123

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$\eta^2$  = eta squared

Though students' level of self-determination was not dependent on treatment group  $F(2, 43) = 2.88, p > .05$ , there were differences within-subjects from pretest to posttest  $F(1, 43) = 4.34, p < .05$ . Figure 1 illustrates the changes from pretest to posttest for each group, showing that the intervention groups (1 and 2) increased while the control group (3) decreased.

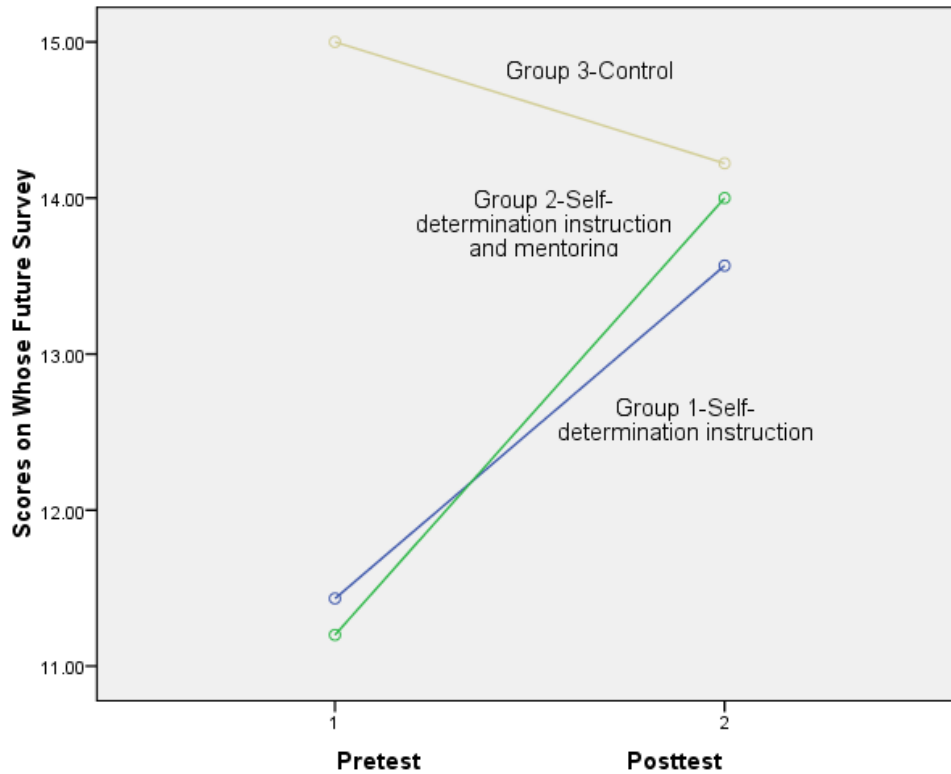


Figure 1. Pretest and posttest scores by group.

### Research Question 2

$H_0_2$ : There is no difference between levels of self-determination for students who receive instruction in self-determination than those students who do not receive instruction in self-determination (Group 1 X Group 3).

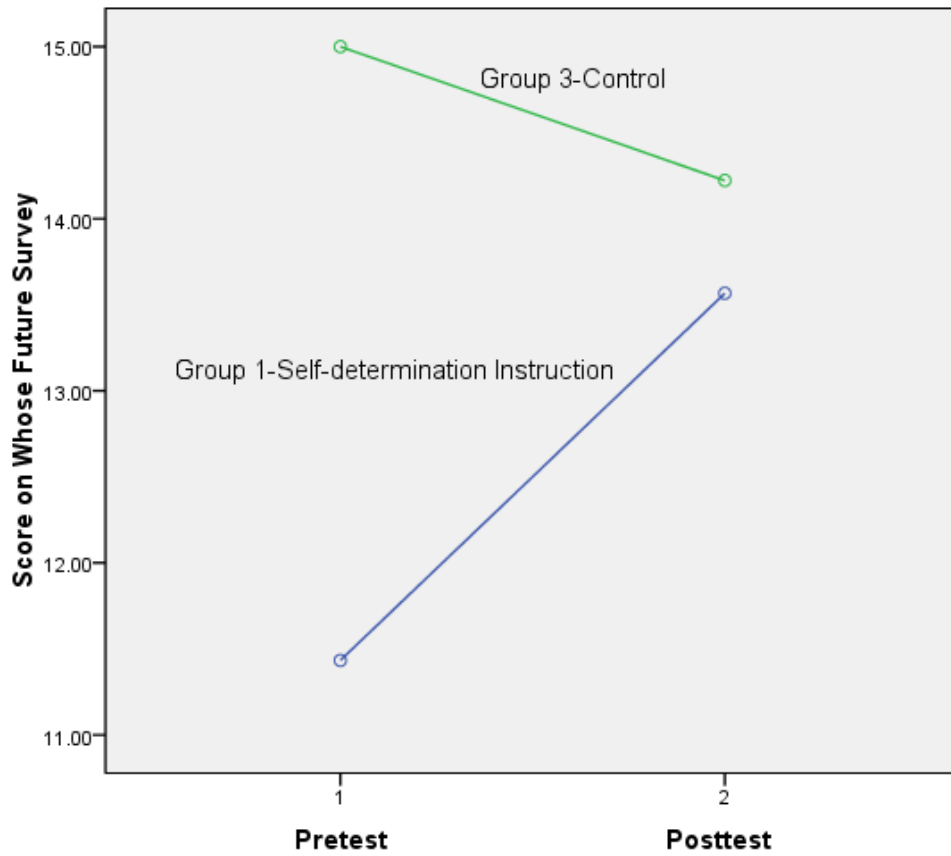
Null hypothesis two was retained. A 2 x (2) mixed ANOVA was conducted to detect interaction effects between Group 1 and Group 3. The interaction effect for change in posttest scores over time indicated statistical significance ( $F = 4.97, p < .05$ ). Table 10 displays these findings and Figure 2 illustrates the change over time in posttest scores.



Table 10

*2 x (2) Mixed ANOVA for Interaction Effects for Group 1 and Group 3*

Group	N	Pretest	Posttest	F	Prob	$\eta^2$
		Mean (SD)	Mean (SD)			
Group 1 (Self-determination instruction)	30	11.43 (3.28)	13.57 (3.66)	4.97	.032	.118
Group 3 (No self-determination instruction)	9	15.00 (2.78)	14.22 (3.11)			



*Figure 2. Interaction Effects for Group 1 and Group 3 Over Time*

*Research Question 3*

$H_0_3$ : There is no difference between level of self-determination for those students who receive instruction in self-determination and participate in peer mentor activities than those students who receive no instruction (Group 2 x Group 3).

Null hypothesis three was retained. A 2 x (2) mixed ANOVA was conducted to detect interaction effects between Group 2 and Group 3. The interaction effect for change in posttest scores over time indicated statistical significance ( $F = 7.67, p < .05$ ). Table 11 displays these findings and Figure 3 illustrates the change over time in posttest scores.

Table 11

*2 x (2) Mixed ANOVA for Interaction Effects for Group 2 and Group 3*

Group	N	Pretest	Posttest	F	Prob	$\eta^2$
		Mean (SD)	Mean (SD)			
Group 2 (Self-determination instruction and peer mentoring)	5	11.20 (3.27)	14.0 (3.24)	7.67	.017	.390
Group 3 (No self-determination instruction)	9	15.00 (2.78)	14.22 (3.11)			

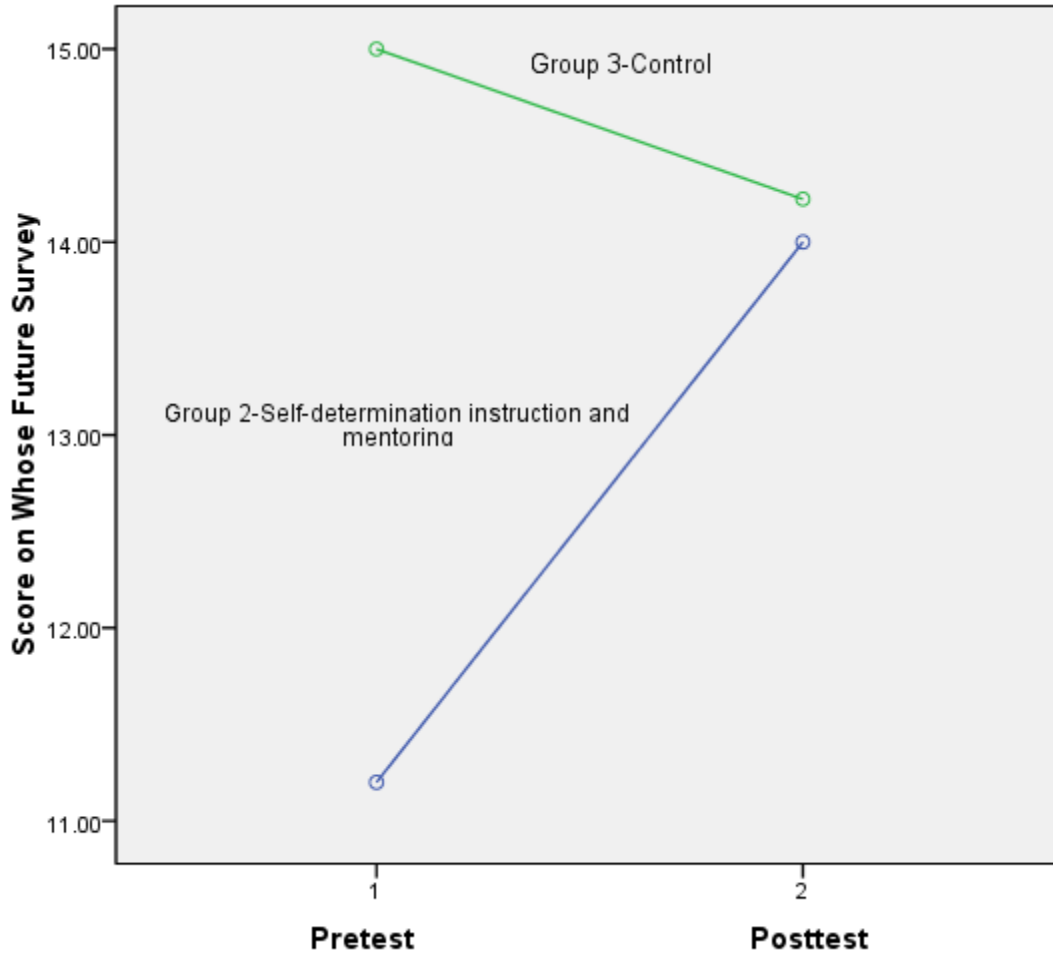


Figure 3. Interaction Effects for Group 2 and Group 3 Over Time

#### Research Question 4

$H_0_4$ : There is no difference between level of self-determination for students who receive instruction in self-determination and participate in peer mentoring activities than those students who receive only instruction in self-determination (Group 2 x Group 1).

Null hypothesis four was retained. A 2 x (2) mixed ANOVA was conducted to detect interaction effects between Group 2 and Group 1. The interaction effect for change in posttest

scores over time indicated there was no statistical significance ( $F = .141, p > .05$ ). Table 12 displays these findings and Figure 4 illustrates the change over time in posttest scores.

Table 12

*2 x (2) Mixed ANOVA for Interaction Effects for Group 2 and Group 1*

Group	N	Pretest	Posttest	F	Prob	$\eta^2$
		Mean (SD)	Mean (SD)			
Group 2 (Self-determination instruction and peer mentoring)	5	11.20 (3.27)	14.0 (3.24)	.141	.710	.004
Group 1 (Self-determination instruction)	30	11.43 (3.28)	13.57 (3.66)			

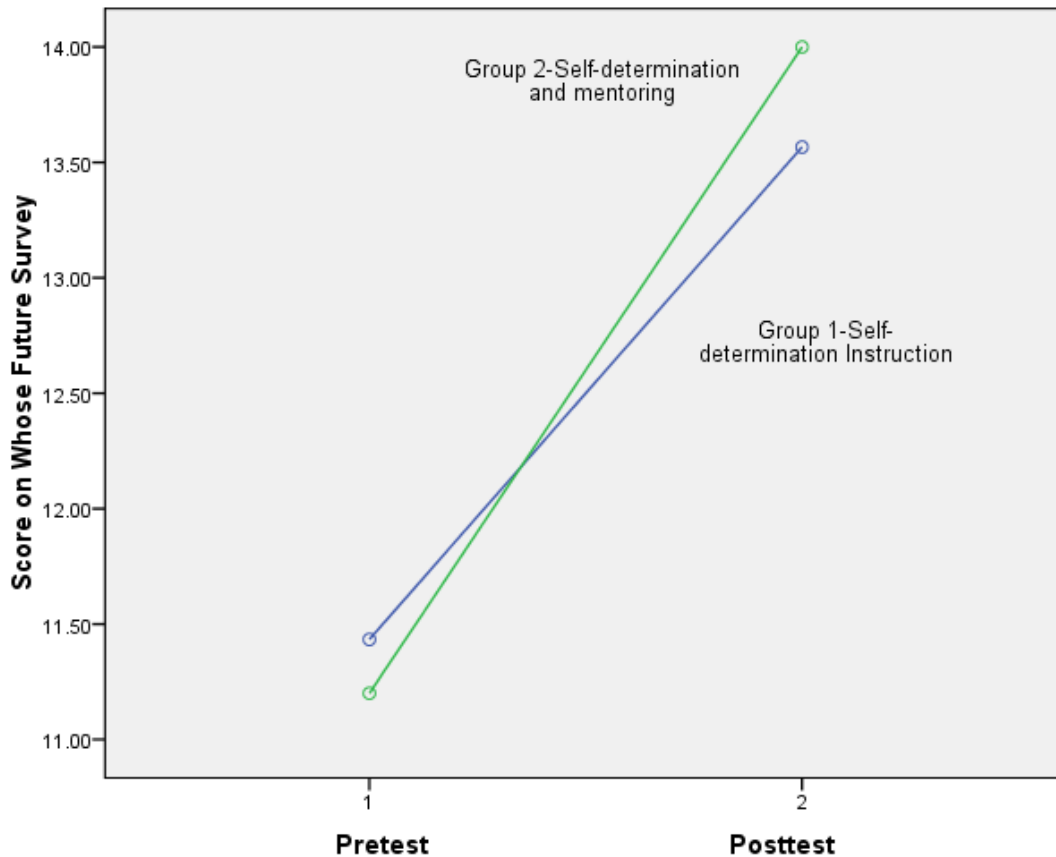


Figure 4. Interaction Effects for Group 1 and Group 2 Over Time

Research Question 5

$H0_5$ : There is no change in level of self-determination for those students with specific learning disabilities who receive instruction in self-determination.

Null hypothesis five was rejected. When examining only those students ( $n = 15$ ) in Group 1 with specific learning disabilities (SLD) there was a significant change ( $F = 5.40, p < .05$ ) in their level of self-determination from pretest ( $M = 11.87, SD = 3.34$ ) to posttest ( $M = 14.40, SD = 4.03$ ). Figure 5 illustrates this change.

Table 13

*ANOVA Results for Students with Specific Learning Disabilities on Level of Self-determination*

Treatment Group	N	Pre-test	Post-test	F	Prob	Cohen's <i>d</i>
		Mean (SD)	Mean (SD)			
Group 1 SLD Only	15	11.87 (3.34)	14.40 (4.03)	5.40	.036	-.684

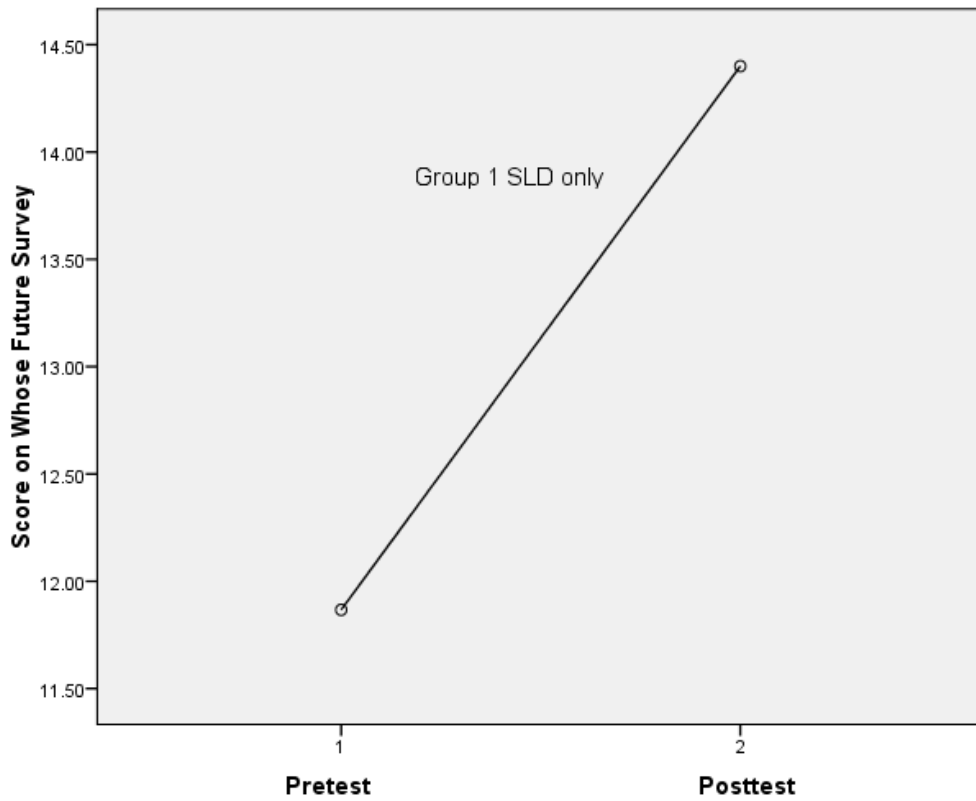


Figure 5. Pretest and posttest scores for students with specific learning disabilities.

## Fidelity of Treatment

The fidelity of treatment measures were developed for two lessons that were taught during the 12 day intervention. Each observation was divided into two sections, teacher behavior and student behavior. Questions focused specifically on content components that were to be covered in each lesson. The first observation, Section 2: Session 10 “Using DO IT!” resulted in 100% agreement by the two raters, one at each intervention site, across 11 specified behaviors. The second observation, Section 4: Session 20 “Identifying Goals for Work” resulted in 81.8% agreement by the two raters, one at each intervention site, across 11 specified behaviors.

## Item Analysis

The *Whose Future is it Anyway?* survey contained 20 multiple choice items with three possible responses each. Students circled their correct response. The following table identifies each item and the percentage of correct responses for the entire participant population (N=44) on the pretest and posttest. Also, the percent increase or decrease of change is indicated, listed in order of highest percent increase. Of the 20 items, 16 showed an increase in the number of correct responses.

Table 14

*Questions with Largest Percentage of Correct Responses*

Item #	Original / Replaced Item		Pretest	Posttest	Percent Increase	Percent Decrease
10	Replaced	In the DO IT! strategy, the “T” stands for:	45.5%	77.3%	31.8%	
3		When you make a decision, outlining your options means to:	59.1%	84.1%	25%	
9	Replaced	In the DO IT! strategy, the “D” stands for:	56.8%	77.3%	20.5%	
17	Replaced	“WIGOUT!” rules help you:	40.9%	61.4%	20.5%	
12	Replaced	An important part of identifying possible outcomes is to:	63.6%	77.3%	13.7%	
18		If decisions are made at your planning meeting that you disagree with, you should:	63.6%	77.3%	13.7%	
8		You can track your progress on a goal if a goal has:	43.2%	56.8%	13.6%	
11	Replaced	A recreation or leisure outcome is:	38.6%	47.7%	9.1%	
13	Replaced	Transition planning is:	63.6%	72.7%	9.1%	
14	Replaced	Prioritize means:	59.1%	68.2%	9.1%	
15	Replaced	Objectives are:	68.2%	72.7%	4.5%	
2		Options are:	65.9%	68.2%	2.3%	
1		Decision-making is:	59.1%	61.4%	2.3%	
19		Standing up for yourself, being confident, and making sure that your ideas and opinions are heard is called being:	34.1%	36.4%	2.3%	
4		Transition planning means making decisions about:	72.7%	75.0%	2.3%	
16	Replaced	Post-secondary goals are:	40.9%	40.9%		
6		Something you aim for or set out to do is:	88.6%	86.4%		2.2%
7		Who can help you reach your goals and objectives:	86.4%	81.8%		4.6%
20		In order to have an effective IEP meeting, what should you do before you go to your IEP meeting?	93.2%	88.6%		4.6%
5		When you give someone permission to change your school services, it is called giving:	70.5%	63.6%		6.9%



### Student Informal Interview

Six days after the conclusion of the study, the intervention instructors returned to each of the treatment groups to administer two interviews. Five students from each treatment group (N=10) responded to questions about the Whose Future is it Anyway? survey and five students from the treatment group who received the self-determination intervention and participated in their school's peer mentoring program answered questions specific to having a peer mentor. Table 15 illustrates the questions that were asked and student responses.

Table 15

*Student Responses about Whose Future is it Anyway? Project*

Question	Group 1 Responses	Group 2 Responses
1 Tell me about the <i>Whose Future is it Anyway?</i> project that you participated in.	<p>Made my decision about going to college, pretty cool program</p> <p>You had helped us make a good choice and a bad choice, decision making, what we want to do</p> <p>It was talking about making your own decision, choose your own decisions, don't let anyone make decisions for you</p>	<p>What's in our IEP</p> <p>Learned about that packet-WIGOUT It was good, we learned about jobs and income</p> <p>It taught you how to make your decisions for what you do after school and what you do for a situation</p> <p>Occupations, learn how to find apartments and where to stay at</p>
2 Would you like to always participate in a project like <i>Whose Future is it Anyway?</i>	Yes	Yes
3 What kind of things did you do in the <i>Whose Future is it Anyway?</i> project?	<p>Budget, where you want to live, a friend, grandparent, DO IT!, got a job</p> <p>Learned about roommates, DO IT! strategy, make good decisions</p> <p>Learn how to make my own decisions, learned about recreation, apartment, DO IT! Process plan out rules decisions and stuff, WIGOUT, how to write down goals</p>	<p>How to set goals for myself read the package, lines and we had to write on them</p> <p>We read, decision making process, I forgot the name of it, some kind of steps we did, DO IT!</p> <p>We did a process called DO IT!, make different options on what you want to do about college and school in general</p>

(table continues)

Table 15 (continued)

Question	Group 1 Responses	Group 2 Responses
4 Do you feel you have changed or learned anything new since participating in the <i>Whose Future is it Anyway?</i> project?	<p>Yes, started saving my money to have a house, got a car</p> <p>First I wanted to get a roommate, my goals</p> <p>Yes, learning everything that I should learn on my own</p> <p>Yes, looking on the internet to find out what college I want to go to, apartments on the way</p>	<p>Yes, I had asked my teacher to see my IEP at first I was scared, but Ms. said don't be scared to ask</p> <p>I think I learned something, decision making process-DO IT!</p> <p>Yes, I learned how to make my decisions more easily for going onto college and having a house and a family</p>
5 What have been your favorite things about the <i>Whose Future is it Anyway?</i> projects?	<p>Yes, changed my way of making decisions</p> <p>Setting your goals for your future</p> <p>I liked all parts even though I missed out because of the flu</p> <p>Snacks</p> <p>Helping them decide, guide them though their careers</p>	<p>Yes, apartments and stuff, living</p> <p>Getting to learn new stuff</p> <p>Being around friends, talk about different processes about going to college and decisions you need to make to get a job</p>
6 Did you have any dislikes about the project?	<p>Nothing, most kids ain't got a future</p> <p>I didn't dislike anything</p> <p>No, I liked everything about it</p> <p>Reading</p> <p>Reading part, kind of hard to keep my attention</p>	<p>I like the whole thing, students should have read more</p> <p>It was fun to me</p> <p>Everything was all good, more snacks would make it better</p> <p>We just sat there and did a packet for so many weeks and it just bores people</p> <p>Reading it</p>

Table 16

*Student Responses about Peer Mentoring Program*

Question	Group 2 Responses
1 Tell me about the mentoring program that you participated in.	<p>Taught you how to be a leader and how you can become that if you learn and pay attention</p> <p>We got to get the poster, I never did the poster, you had to draw what you want and get on the computer with that power point, “My Life”</p> <p>Come down every Wednesday but I wasn’t with my partner every Wednesday</p>
2 How often do you see your mentor/mentee? Only in mentoring sessions or in other areas of the school?	<p>Got on computer, did boards</p> <p>Every day in class, talk to each other and say what’s up</p> <p>Every other Wednesday</p> <p>She’s in my first block</p>
3 What kind of things did you do with your mentor/mentee?	<p>Every day in school, on the track team together</p> <p>Made a poster, talked, did a project on computer called “My Life”</p> <p>computer and stuff, did our goals and stuff</p> <p>We did that poster and paid attention to that, being able to get it completed and turned in for the transition conference</p>

(table continues)

Table 16 (continued)

Question	Group 2 Responses
4 Do you feel you have changed or learned anything new since having a mentor/mentee?	<p>I can't remember</p> <p>We got to get the poster, I never did the poster, you had to draw what you want and get on the computer with that powerpoint, "My Life"</p> <p>Yes, I felt like I learned how to be a leader and help out other people when they're struggling with work-I changed, making better grades</p> <p>Yes, you got to get better at it and do a good job on your work</p>
5 What have been your favorite things about having a mentor/mentee?	<p>No</p> <p>Being able to learn more from him and to know what I need to accomplish to get help when I need it</p> <p>The powerpoint, you could do stuff about your life</p> <p>Somebody older to look up too</p>
6 Did you have any dislikes about the mentoring program?	<p>Coming down here every Wednesday</p> <p>No dislikes, pretty much enjoyed myself</p> <p>I didn't like coming down here, I wanted to be in class and at lunch</p> <p>No, nothing</p> <p>That I didn't have my partner everyday</p>

## Summary

This chapter presented the results of this study by first describing the participant population and then analyzing the results of the pretest and posttest assessments of three different group conditions using a mixed ANOVA. The results of that test were not statistically significant and, therefore, post hoc analyses were not conducted. The results indicated that though there were no between subject differences, overall, there was an increase within subjects from pretest to posttest.

Also in this chapter, descriptive statistics were provided for each of the items on the dependent measure, the *Whose Future is it Anyway?* survey. The percentage of correct responses for each item on the pretest and posttest were listed. Finally, student responses to the follow-up interviews are reported in the students' own words. The final chapter presents a discussion of the results, limitations, recommendations for future research, and provides a conclusion.

## CHAPTER V. SUMMARY OF FINDINGS, LIMITATIONS, AND FUTURE RESEARCH

This chapter concludes the present study by summarizing the background and purpose. A brief explanation of the procedures and research questions are presented. A discussion of the results follows, specifically addressing students' improvements in self-determination. Also highlighted is the additional component of participation in peer mentoring activities. This chapter then provides possible limitations that may have affected the outcomes of this study and provides suggestions for future research in the area of self-determination.

### Background and Purpose

#### *Background*

Individuals with disabilities have been pioneers in claiming equal rights, that for so long, were withheld from them because of society's lack of knowledge about disabilities. As time continues to move forward, there will always be a need for individuals with disabilities to advocate for themselves and others so that rights and freedoms continue to be provided to them. Though the first "civil rights" for individuals with disabilities were declared in 1973 by the Vocational Rehabilitation Act, the advocacy movement is very current and continuing to bring about changes and protections for those with disabilities. In fact, the Americans with Disabilities Act, signed in 1990, was just recently amended in 2008 as a result of advocacy for individuals with disabilities. The need for individuals with disabilities to be leaders and advocates in this field requires that they be provided the skills and knowledge needed to assume these roles.

One proposed method, for continuing to develop advocates for those with disabilities, is to teach high school youth with disabilities the importance of using their own voices when they are planning for their futures and assuming adult roles. Not all students realize that they can control their own lives by speaking up for what they need and want. The concept of self-determination encompasses such skills as decision-making and goal-setting. Self-determination has been defined by many leaders in the field including Wehmeyer (1996), who defines self-determination as “acting as the primary causal agent in one’s life and making choices and decisions regarding one’s quality of life free from undue external influence or interference” (p. 24) and Ward’s definition (1988), “the attitudes, abilities, and skills that lead people to define goals for themselves and to take the initiative to reach these goals (p. 2). Such definitions provide educators and researchers with the tasks of assisting youth in becoming such self-determined individuals.

There are numerous benefits to providing self-determination instruction to youth with disabilities, including, improved knowledge of disability, academic performance, employment outcomes, goal setting and attainment, and overall positive post school outcomes (Martin et al., 2007; Wehmeyer & Kelchner, 1996; Zhang, 2005). Similar to the benefits of self-determination is the concept of peer mentoring. Peer mentoring relationships are those relationships formed between individuals with similar disorders, who have shared common experiences, and who can provide social and emotional support as well as assist in personal change and development (Solomon, 2004; Veith et al., 2006). Peer mentoring also provides youth with positive in-school and post school benefits, including improved academic achievement, fewer absences and grade retentions, and greater rates for graduation and enrollment in post secondary education (Dappen & Isernhagen, 2006; Glomb et al., 2006; Rhodes et al., 2000). The use of multiple practices for



increasing knowledge of self-determination skills was examined in this study to provide practitioners with a variety of options for teaching such skills.

Though such positive outcomes accompany instruction in self-determination and participation in peer mentoring, teachers indicate there is little time and few resources for teaching self-determination skills (Uphold et al., 2007; Wehmeyer et al., 2000) and developing comprehensive and effective mentoring programs (Rhodes, 2008). Another barrier to providing such instruction is teachers' reports of the lack of knowledge of what self-determination is and how to teach students to gain skills to be self-determined (Thoma et al., 2008).

As suggested by the Council for Exceptional Children, Division of Career Development and Transition, students must be given multiple opportunities to develop and practice self-determination skills (Field et al., 1998). Similarly, the Individuals with Disabilities Education Improvement Act (IDEIA, 2004) also advises that students assume active roles in their transition planning process. In order for students to assume that role, they must be prepared and self-determined (Martin et al., 2006). Previous research in the area of self-determination has suggested that though efforts have been made to encourage professionals to provide instruction specifically addressing self-determination skills, there remains a gap in the application of research findings into practice (Wehmeyer et al., 2003; Uphold et al., 2007).

#### *Purpose and Procedures*

This study sought to examine the effects of a self-determination intervention for high school youth with mild disabilities to improve their self-determination skills. An additional purpose of this study was to compare students' knowledge of self-determination skills who participate in a peer mentoring program with those who do not. Specifically, the research questions addressed in this study were as follows:

1. Is there a difference in decision-making and goal-setting knowledge and skills between students who receive self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum, students who participate in peer mentor activities and receive self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum, and students who do not receive self-determination instruction (Group 1 x Group 2 x Group 3)?

2. Do students who receive self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum have greater decision-making and goal-setting knowledge and skills than those students who do not receive instruction (Group 1 x Group 3)?

3. Do students who participate in peer mentor activities receive and receive self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum have greater decision-making and goal-setting knowledge and skills than those students who receive no self-determination instruction (Group 2 x Group 3)?

4. Do students who participate in peer mentor activities and receive self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* Curriculum have greater decision-making and goal-setting knowledge and skills than those students who receive only self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum (Group 2 x Group 1)?

5. Do students who have specific learning disabilities have greater decision-making and goal-setting knowledge and skills after participating in self-determination instruction using 12 lessons from the *Whose Future is it Anyway?* curriculum (Group 1, Specific Learning Disability)?

In an effort to answer the proposed research questions, 44 ninth-, tenth-, eleventh-, and twelfth-grade students from three southeast Alabama high schools were recruited for

participation in this study. All students were considered to have mild disabilities and be receiving services under the Individuals with Disabilities Education Improvement Act (IDEIA, 2004). The participants were purposely selected for participation in one of three groups. The groups in this study were as follows:

*Group 1.* Students participated in the self-determination intervention.

*Group 2.* Students participated in the self-determination intervention and took part in a pre-established peer mentoring program.

*Group 3.* Students did not participate in the self-determination intervention or the pre-established peer mentoring program.

The intervention consisted of 12 lessons taken from *Whose Future is it Anyway?* curriculum, specifically aimed at teaching decision-making and goal-setting skills. The 12 lessons were taught, one each day, to the two treatment groups, Group 1 and 2. Lessons were taught by instructors, two special education teachers working towards doctorate degrees, in special education classrooms for approximately 45 minutes each day. The materials used during the intervention included two sections from *Whose Future is it Anyway?*: Section 2: Making Decisions and Section 4: Goals, Objectives, and the Future. The sections were composed of six sessions collated into approximately 50 page packets, each coded for individual students.

A pretest/posttest design was used to evaluate the effects of this intervention and follow-up interviews were administered to gain student perspectives of the intervention. The measurement used to assess level of self-determination was a 20 item multiple choice survey. The survey, adapted from the *Whose Future Survey* (Wehmeyer & Lawrence, 1995), evaluated students' knowledge of specific skills in the area of decision-making and goal-setting, reflective of content covered in the 12 lesson intervention.

The results of the research questions are discussed below and offer insights into future research in the area of self-determination and peer mentoring. Overall, the findings of this study appear to provide information for special education teachers and administrators that supports incorporating self-determination skills into daily classroom instruction. This study utilized the *Whose Future is it Anyway?* Student-Directed Transition Planning Process (Wehmeyer et al., 2004) that can be taught in the special education classroom. This curriculum allows specific lessons to be chosen to meet individual student needs or perhaps to fit into constraints associated with limited classroom time. The lessons in this curriculum are scripted and provided instructors with specific directions for use.

Second, the results suggest that students are capable of learning to make decisions and set goals. The significant improvements from pretest to posttest scores, on level of self-determination, provide evidence that students with disabilities can gain knowledge of content areas being taught. This encourages the need for specific instruction of self-determination skills, such as decision-making and goal setting, to be provided to youth with disabilities. The results from this study also demonstrate that curricula that have been created to support teachers in such instruction are beneficial and effective in teaching self-determination skills.

An interesting component of this study was the follow-up interviews that were conducted one week after the intervention. Students were asked questions about what they learned, what they liked, and what they did not like about the intervention. These interviews perhaps offer the largest insight into the benefits of providing self-determination instruction and mentoring activities for high school youth with disabilities.

A majority of the interview responses in regards to the self-determination intervention indicated that students' had learned to make choices and be in charge of their own lives. In fact,

one student stated, “I had asked my teacher to see my IEP at first I was scared...” Another student responded that they had been “looking on the internet to find out what college I want to go to, apartments on the way.” When asked about participation in the peer mentoring program one student stated, “I felt like I learned how to be a leader and help out other people when they’re struggling with work-I changed, making better grades.” These statements indicate that the interventions were effective and students took away important components needed to improve their own lives.

### Discussion of Findings

Five null hypotheses were analyzed using mixed analysis of variance (ANOVA) procedures. Though there was a significant difference over time on level of self-determination, it was not dependent on group. That is, there was no statistical difference between Group 1 (self-determination instruction and Group 2 (self-determination instruction and peer mentoring) on level of self-determination. However, interaction effects were detected between each of the treatment groups and the control group (Group 1 x Group 3 and Group 2 x Group 3) meaning that each of the treatment groups differed significantly in their level of self-determination from the control group over time. Additionally, examining only students with specific learning disabilities in Group 1 on their performance from pretest to posttest indicated a significant difference in their level of self-determination. Overall, the findings did not support a difference in groups, those that receive self-determination instruction and those that receive instruction plus participate in peer mentoring activities, but the results did reveal an improvement in level of self-determination after participating in the intervention for both treatment groups.

### *Research Question 1*

A 3 x (2) mixed analysis of variance (ANOVA) indicated there was no significant difference over time between groups (Group 1, Group 2, Group 3) on level of self-determination ( $F = 2.88, p > .05$ ). That is, students' level of self-determination was not dependent upon which treatment group students were in. However, participants in the treatment groups did increase their level of self-determination over time ( $F = 4.34, p < .05$ ) which suggests that the 12 day intervention was effective in improving students' knowledge and skills of making decisions and setting goals.

The results from research question one indicate that self-determination instruction, when provided to students in group lessons, is effective in teaching students particular skills related to being self-determined. Konrad et al. (2007) indicated that a wide variety of interventions for teaching self-determination skills can be used including commercially available curricula, group instruction, student conferences, and prompting and feedback. In a review of 34 experimental articles to teach self-determination, 27 used a single-subject design while 6 used group experimental designs (Konrad et al.). Wood et al. (2005) also indicated of 21 articles reviewed, 10, specifically using choice-making as a dependent variable, used single-subject designs as well. This study suggests that whole group instruction may be successful and can be easily incorporated into classroom instruction.

Though the results from this study are promising for this population, in a national study funded by the United States Department of Education in 2002, only 62% of teachers indicated that they taught self-determination "often" and 29% reported teaching these skills "sometimes" (Thoma et al., 2005). The results from this current study provide teachers with content and strategies for teaching self-determination skills more than "often." Jones (2006) found that

teachers, when beginning instruction in self-determination, had to first acknowledge to themselves that their students with disabilities were capable of learning about their disability, their IEP, and their strengths and weaknesses. The findings in this current study demonstrate to professionals that students with disabilities are able to learn skills leading to self-determined behaviors. Overall, students who received this self-determination intervention increased significantly from their pretest scores to their posttest scores. These results suggest that self-determination curricula, when taught in the classroom setting, are effective for teaching such skills.

Additionally, this first analysis also reveals participation in peer mentoring activities does not produce any additional benefits or increase knowledge and skills of self-determination as measured by this study. Rhodes et al. (2002b) stated that it is quite difficult to examine the effects of mentoring programs because there are such extreme variations in program structures and practices. Though there may be other benefits related to peer mentoring, this study shows that peer mentoring is not related to level of self-determination.

### *Research Questions 2 and 3*

Despite the findings that there were no statistical differences in level of self-determination dependent on group, there was a need to conduct additional analyses to identify any differences between the treatment groups and the control groups. Given that the control had a much higher mean on the pretest, there may have been interaction effects over time between the treatment groups and the control groups. Therefore, a 2 x (2) mixed ANOVA was conducted to examine interaction effects between students who participated in the self-determination intervention (Group 1) and those that did not (Group 3). The results indicated there was a significant difference ( $F = 4.97, p < .05$ ) in performance from the pretest to the posttest scores

over time. The treatment group (Group 1), when examined over time, improved significantly in their level of self-determination. Similar to research question 2, research question 3 was answered by conducting a 2 x (2) mixed ANOVA to examine interaction effects between students who participated in the self-determination intervention and peer mentoring (Group 2) and those that did not (Group 3). The results indicated there was a significant difference ( $F = 7.67, p < .05$ ) in performance from the pretest to the posttest scores over time. The treatment group (Group 2) improved significantly on their level of self-determination over time when compared to the control group (Group 3).

An important issue to be discussed in relation to research questions 2 and 3 is the pretest scores of Group 3 compared to the scores of Groups 1 and 2. Group 3 served as the control group, meaning they received no intervention. The pretest scores of each of the treatment groups were significantly different, meaning that the groups were not equal prior to the intervention. As described in the results chapter, the mean score for Group 3 on the pretest was 15.00 ( $SD = 2.78$ ) and for Group 1, 11.43 ( $SD = 2.38$ ) and for Group 2 the mean was 11.20 ( $SD = 3.27$ ). Therefore, the need to examine interaction effects over time was critical, since Group 3 had a pretest score that was significantly higher than Group 1 and Group 2. The limitations section of this chapter discusses the possible reasons for these group differences.

The results of research questions two and three suggest that students who receive instruction in self-determination (Group 1) or receive instruction in self-determination and participate in peer mentoring program activities (Group 2) have higher knowledge and skills in the areas of decision-making and goal-setting than those students who do not receive instruction or participate in peer mentoring programs (Group 3). As indicated by Martin et al. (2006), students must be prepared to assume control over planning for their futures. The results from this



study reveal that students, when provided self-determination instruction, can learn skills to be active participants in planning for their futures. As suggested by Thoma et al. (2008), combining direct instruction with opportunities to practice learned skills, is critical for attainment of self-determination skills. Eisenman and Tascione (2002) also recommended the use of structured curriculum for teaching self-determination skills that allow students opportunities to practice being self-determined. *Whose Future is it Anyway?* provides for combinations of teaching strategies to allow students to gain knowledge and then practice what they have learned (Wehmeyer et al., 2004).

When beginning to teach self-determination skills to youth with disabilities, it is necessary to consider the particular skills that students need in order to become self-determined. Konrad et al. (2007) indicated that instruction in more than one skill area is more effective at increasing academic performance than just providing instruction in one area. For example, the current study taught students both decision-making skills and goal-setting skills. For professionals working with individuals with disabilities, these findings indicate that commercial materials available for teaching such skills are beneficial and can be taught in a classroom setting.

#### *Research Question 4*

Research question four examined the differences between the two treatment groups. Group 1 participants received the self-determination intervention and Group 2 received the self-determination intervention and participated in a pre-established peer mentoring program (Group 2). A 2 x (2) mixed ANOVA indicated there was no statistical difference in the groups over time from the pretest to the posttest ( $F = .141, p > .05$ ). Though there were not statistical differences, Group 2, those students who received instruction and participated in the peer mentoring program

did have a higher mean score ( $M = 14.0$ ) on the posttest than the other treatment group, Group 1 ( $M = 13.57$ ). These results indicate that participation in a peer mentoring program did not add any significant differences to the level of self-determination for the students in this group when compared to the students who only received the self-determination instruction. That is, participating in the pre-established peer mentoring program did not add any significant improvements to their level of self-determination.

Though there was no difference between these two groups, the higher posttest mean score for Group 2 (self-determination intervention and participation in peer-mentoring program) may offer insights to future research and organization of peer mentoring programs. As mentioned earlier, mentoring programs are structured in such a wide variety that it is difficult to determine the effects of mentoring programs (Rhodes et al. 2002b). Approximately five million students are involved in some type of mentoring program, but because of the inconsistency in structure of programs, little is known about the influences on academic achievement (Rhodes et al., 2000). In fact, Guetzloe (1997) cautions that the increase in the number of mentoring programs may affect the quality and benefits they provide. Though there is a lack of research regarding benefits of participating in mentoring programs, there have been links to improved academic achievement, fewer absences, fewer retentions, increased graduation and enrollment in post secondary education (Dappen & Isernhagen, 2006; Glomb et al., 2006; Rhodes et al., 2000). Future research in the area of peer mentoring may be helpful in providing guidelines for developing meaningful programs.

#### *Research Question 5*

Finally, research question five was analyzed using ANOVA procedures to examine any differences from pretest to posttest scores for only those students who had specific learning

disabilities. There were 15 students included in this analysis from Group 1 who received the self-determination intervention. The results indicated that there was a significant difference for these students in their scores from pretest to posttest ( $F = 5.40, p < .05$ ). Similar to Durlak et al. (1994), after providing direct instruction of self-determination skills to eight high school students with learning disabilities, those students made improvements in the areas of disability awareness, discussion of strengths and weakness, and needed accommodations. For this population of students, those with learning disabilities, a large majority of them will go on to some type of post secondary education. Gaining skills and knowledge in the area of self-determination will help them to achieve their post school goals. This type disability specific information is most helpful for determining which curricula may be appropriate to meet individual student needs.

#### Limitations

Several limitations exist in this study that lessens the ability to generalize the findings. Those limitations are related to participant selection and homogeneity of groups, time of year, researcher bias, delivery of instruction and assessments, and intervention material adjustments.

##### *Participant Selection and Homogeneity of Groups*

The first limitation to be discussed is participant selection. The principal investigator provided teachers with criteria, grade level and disability for selecting students for participation in this study. Not taken into consideration were the differences among the special education teachers who would be doing the selecting and their biases. Though teachers did follow the requested criteria, they may have selected students that they felt would be most likely to participate in the study which may have resulted in differences between the groups. Also related to participant selection were differences in disability. Though schools were chosen based on their

similarities of size, race, gender, and free and reduced lunch, the groups represented a mix of disability types and functioning levels.

Particularly affected by this selection were the participants in Group 3 (control group). Because this group of students was not participating in the 12 days of intervention, the only time required of them was approximately 45 minutes on two occasions to complete the pretest and then the posttest. Therefore, these students may have been selected out of the general education classroom because of the minimal time needed to participate in the study. This group did not represent any students with mental retardation. The other groups were mostly comprised of students in the special education resource classrooms because of the 45 minutes needed each day to complete the 12 lessons. These issues limit the generalization of results to other populations.

Another limitation related to the participants in this study was the selection of students participating in a school-based peer mentoring program. The principal investigator specifically chose a school that was implementing a mentoring program to examine any additional benefits related to level of self-determination. However, the mentoring program was comprised of students who had varying levels of disabilities and educational goals. A large majority of the students participated in the general education curriculum and could not be removed from those classes for the 12 days of intervention. Therefore, Group 2, the self-determination intervention and peer mentoring group, was only comprised of students who had mental retardation and were participating in resource special education classes. This group formation may have limited the ability to fully assess the additional benefits of students participating in peer mentoring programs.

### *Time of Year*

Several limitations may have been due to the time period in which this study was conducted. The first issue was surrounding spring break. All three participating schools had one week of spring break during the estimated time for returning informed consent and student assent forms. Therefore, the timeline for recruiting participants was reduced from two weeks to one week. Additionally, the intervention occurred during the last month of school for each of the participating systems. This resulted in some student absences due to field trips and senior holidays. Also, student and teacher morale for continuing learning during this last month may have been low.

### *Researcher Biases*

The second area of possible limitations to be discussed was that of the researcher biases. The principal investigator also served as an intervention instructor and taught the 12 days of lessons to one of the treatment groups. This may have been a limitation due to the researcher's interest in the area of self-determination. The researcher had extensive knowledge of how to teach self-determination skills through on-going research in the area. Also, at the conclusion of the study, the principal investigator asked the questions from the follow-up interviews. Because of the affiliation with the students prior to the interviews, students may have been reluctant to share their true thoughts and recommendations about the intervention.

### *Delivery of Instruction*

An issue with the delivery of instruction was related to the administration of the pretest and posttest to each group. Students in the treatment groups, Group 1 and Group 2, were given the pretest and the posttest in group settings in the special education classroom. The questions and possible responses were read to the students. Group 3 participants, the control group, were

administered the pretest and posttest in a one-on-one small group setting. Because these students were not participating in the daily lessons, they were called from classes and reported to a special education classroom to take their pretest and posttest at their convenience. The students came in and took their test and were given the option of reading it on their own or having the instructor read it to them. This small group setting may have contributed to higher pretest scores for the control group.

### *Intervention Material Adjustments*

A final known limitation of this study were adjustments made to the curriculum materials. Throughout the 12 lessons that were selected to be taught during this study, the authors indicated students should request a copy of their post school goals from their classroom teachers. Instead of using actual student Individualized Education Programs (IEP), the principal investigator created generic post school goals that were used in place of individual student goals. This adjustment may have affected the outcomes of this study.

Another change made to the curriculum was the selection of only two of the six sections that comprise the entire *Whose Future is it Anyway?* curriculum. Though indicated by the authors that such selections may be made, this student-directed transition planning process is presented as a logical series of steps for learning how to direct the transition planning process for students from beginning to end. Finally, there were several occasions when the selected sections would refer to a previous section that was not covered during the intervention. They appeared as flashbacks to other skills that were taught in the *Whose Future is it Anyway?* curriculum. These components of the sections were read aloud as if the students had received instruction in these other sections. This may have limited the students' abilities to fully articulate the new skills being learned or activate background knowledge.

## Future Research

One of the most critical factors to successfully completing research in school settings is the establishment of trusting relationships with all stakeholders involved, including central office and school administrators and most importantly, classroom teachers. In order to continue to conduct research projects with students in their natural environments, higher education and public school systems must collaborate and value each others' contributions to the improvement of the educational process. These types of collaborative models can be achieved by involving each other in professional development opportunities, such as inviting public school personnel to speak to future teachers on topics, as well as bringing new research from higher education to current practicing teachers.

Though educators, administrators, and researchers are not in the business of sales, the pressures that are already placed on these professionals, especially classroom teachers, may limit their willingness to become involved in any additional projects, that appear to put more requirements on their daily responsibilities. In reality, teachers are the ones that provide the direct services to students and, therefore, they must be convinced to try new practices that are supported by empirical evidence.

Another issue to be considered in the future replication of this study related to relationships is to use classroom teachers as the intervention instructors. It is very difficult for researchers to enter classrooms and develop relationships with students in only a matter of 12 days. Students are skeptical of adults and establishing a relationship with students that allows for critical discussions of disability and strengths and limitations associated with those disabilities which are necessary for developing self-determined behaviors. It is recommended that in the future, special education teachers be identified for implementation of research interventions.

Another recommendation for future research in this area is the development of peer mentoring programs. As stated in the literature, mentoring programs require extensive planning and follow-through to be created, maintained, and evaluated. The school-based program used in this study was established seven months prior to the beginning of the intervention. Research suggests that there are several factors which contribute to successful mentoring relationships including the role of the mentor in mentee's life, the number of contacts between the mentor and the mentee, the intimacy of the relationship, and the duration of the mentoring relationship (DuBois & Silverthorn, 2005a). To most effectively examine the relationship between level of self-determination and participation in peer mentoring activities, it is necessary to use programs that have been in place for a long period of time and have effectively implemented mentoring activities.

An additional suggestion for teaching self-determination skills would be to include a family component for instruction. In an effort to help students gain self-determination skills, it is critical that those behaviors be fostered in the home as well as in schools (Grigal et al., 2003). This could be in the form of family questionnaires or projects that involve family members so that they can also learn about student independence and self-determination; particularly when participating in IEP meetings. Parents must recognize that students need to be the primary leader in their transition planning process and; therefore, should be prepared to support their students as they begin to assume those leader roles.

This study only included students with disabilities at the high school level. However, all youth reach adolescence and hope to gain independence and; therefore, can benefit from similar instruction in the area of self-determination. Future research may compare students with and without disabilities on their level of self-determination when participating in an intervention.



Also, because instruction in decision-making and goal-setting should begin early, this study may also be beneficial to middle school youth. Finally, this study included students who were considered to have mild disabilities such as learning disabilities, mild mental retardation, other health impairments, and visual or hearing impairments. Because it has been suggested that intellectual functioning does not significantly impact one's ability to act self-determined (Wehmeyer & Garner 2003), similar interventions may be effective for students with more severe disabilities.

The final, and perhaps most important, recommendation for future research is to develop studies that examine variables over an extended period of time. Because being self-determined is linked to improved employment outcomes and independence (Konrad et al., 2007; Wehmeyer & Schwartz, 1997), improved behavior and physical well-being (Clark et al., 2004), and setting and achieving post school goals (Field & Hoffman, 2007), examining these variables of students who have participated in self-determination instruction in high school could be beneficial for program development. Identifying factors that contribute to positive post school outcomes will allow for improved transition planning that is based on practices that improve the lives of youth with disabilities.

### Conclusion

The overall purpose of research in the area of self-determination and peer mentoring is to improve the lives of youth with disabilities. In 1993, Andrew Halpern suggested that the focus of transition not just be students' employment outcomes or post school opportunities, but that it expand to include a component he called "quality of life." Our value as human beings is not just measured by what we do during the work week, but by the way we choose to spend our free time. Youth with disabilities need assistance in learning to make such decisions. During their

preparation for transitioning to life after high school, as required by federal mandates (IDEIA, 2004), teachers and other professionals must prepare them to make such choices. It is through instruction in self-determination that youth learn the skills they need to be in control of their lives. In the larger scheme of things, it is the “quality of life” of these youth with disabilities that is ultimately influenced by their involvement in planning for their own lives. As professionals in the field of special education and human services, it is our role to provide opportunities for students to learn how to control their futures.

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APPENDIX 1

“WHOSE FUTURE IS IT ANYWAY?” SURVEY

Student Code: \_\_\_\_\_ Date: \_\_\_\_\_

School: \_\_\_\_\_

Choose the **best** answer for each question. Circle only one answer for each question.

1. Decision-making is:	a. A one step deal	b. A multi-step process	c. For other people
2. Options are:	a. What you expect to do	b. All the things you can choose from	c. Unique needs
3. When you make a decision, outlining your options means to:	a. Draw lines around an option	b. Check on the start	c. List things to choose from

(survey continues)

Adapted from Whose Future Survey (Wehmeyer & Lawrence, 1995)

Survey (continued)

4. Transition planning means making decision about:	a. Your future	b. Your life	c. Both a. & b.
5. When you give someone permission to change your school services, it is called giving:	a. Informed consent	b. A hall pass	c. Community support
6. Something you aim for or set out to do is:	a. A decision	b. A resource	c. A goal
7. Who can help you reach your goals and objectives:	a. Both b. & c.	b. Your parents	c. Your teacher
8. You can track your progress on a goal if a goal has:	a. A starting and ending point	b. Both a. & c.	c. A way to measure it

Adapted from Whose Future Survey (Wehmeyer & Lawrence, 1995)

Survey (continued)

9. In the DO IT! strategy, the ‘D’ stands for:		
a. Define your problem	b. Don’t be scared	c. Dial for help
10. In the DO IT! strategy, the ‘T’ stands for:		
a. Talk about it	b. Try many things	c. Take action
11. A recreation or leisure outcome is:		
a. Where you expect to live	b. What you expect to do in your free time	c. What you expect to do about work
12. An important part of identifying possible outcomes is to:		
a. Wait and see what happens	b. Do what your friends do	c. Get information
13. Transition Planning is:		
a. Bridge to your future	b. Letter that your parents sign	c. Test you have to pass
14. Prioritize means:		
a. Make a schedule	b. Put things in order of importance	c. List things in alphabetical order

Adapted from Whose Future Survey (Wehmeyer & Lawrence, 1995)



Survey (continued)

15. Objectives are:	a. Steps that help you reach your goal	b. People that help you reach your goal	c. Grades that help you reach your goal
16. Post-secondary goals are:	a. Goals for living	b. Goals for work	c. Goals for continuing school
17. "WIGOUT!" rules help you:	a. Write goals and objectives	b. Stay calm	c. Make a list of options
18. If decisions are made at your planning meeting that you disagree with, you should:	a. Appeal the decision	b. Forget the decision	c. Ignore the decision
19. Standing up for yourself, being confident, and making sure that your ideas and opinions are heard is called being:	a. Aggressive	b. Assertive	c. Passive
20. In order to have an effective IEP meeting, what should you do before you go to your IEP meeting?	a. Clean your room	b. Get a haircut	c. Prepare your ideas

\*\* Please circle or complete the information below.

<b>GRADE</b>	<b>GENDER</b>	<b>AGE (please write)</b>	<b>ETHNICITY</b>	<b>DISABILITY (please write if you know)</b>
9	Male		Black	
10	Female		Hispanic	
11	Other		White	
12			Asian	
			Bi-racial	
			Other	

## APPENDIX 2

### ORIGINAL QUESTIONS AND NEW QUESTIONS

Original Questions	Specific Content Questions
1. The purpose of an educational planning IEP meeting is to: a. Talk about how you did this year b. Set goals for next year c. Both a. & b.	9. In the DO IT! strategy, the “D” stands for: a. Define your problem b. Don’t be scared c. Dial for help
2. My school records should include: a. Names of my classmates b. An Individualized Education Plan c. My library card	10. In the DO IT! strategy, the “T” stands for: a. Talk about it b. Try many things c. Take action
3. The law says your transition goals must be based on your needs and your: a. Test scores b. Grades from last year c. Preferences and interests	11. A recreation or leisure outcome is: a. Where you expect to live b. What you expect to do in your free time c. What you expect to do about work
4. Living, employment, school, and leisure outcomes should be addressed in: a. Your IEP/transition plan b. The label used to describe your disability c. Your teacher’s grade book	12. An important part of identifying possible outcomes is to: a. Wait and see what happens b. Do what your friends do c. Get information

5. Educational planning IEP meetings are held...
    - a. When needed
    - b. At least once a year
    - c. Both a. & b.
  15. Making sure that all people at the meeting do what they said they would do is called:
    - a. Deciding the outcome
    - b. Setting the stage
    - c. Following up
  18. If people at a planning meeting have different ideas about your future, your team should...:
    - a. Not listen to others
    - b. Eat lunch and forget about it
    - c. Work together to agree
  19. A group of people who work together for a common goal is:
    - a. An Individualized Education Plan
    - b. A team
    - c. A portfolio
  20. The people and agencies you can contact to meet your need are:
    - a. Training outcomes
    - b. Community resources
    - c. Transition meetings
  13. Transition Planning is:
    - a. Bridge to your future
    - b. Letter that your parents sign
    - c. Test you have to pass
  14. Prioritize means:
    - a. Make a schedule
    - b. Put things in order of importance
    - c. List things in alphabetical order
  15. Objectives are:
    - a. Steps that help you reach your goal
    - b. People that help you reach your goal
    - c. Grade that help you reach your goal
  16. Post-secondary goals are:
    - a. Goals for living
    - b. Goals for work
    - c. Goals for continuing school
  17. "WIGOUT!" rules help you:
    - a. Write goals and objectives
    - b. Stay calm
    - c. Make a list of options
-

APPENDIX 3

TIMELINE OF ACTIVITIES

Activities	Preparation Days	Pretest Administration	Intervention Days	Posttest Administration	Follow-up Interviews
DAY					
1	Distribute consent forms and informational flyer to <b>intervention</b> groups				
	Provide overview of the study and schedule				
2					
3					
4	Distribute consent forms and informational flyer to <b>control</b> group				
	Provide brief overview of the study and schedule				
5-10	Waiting for signed consent forms to be returned				
	Training for implementation of the <i>Whose Future is it Anyway?</i> lessons				
11	Signed consent forms gathered				
	Unidentifiable codes assigned				
	Materials labeled				

Activities	Preparation Days	Pretest Administration	Intervention Days	Posttest Administration	Follow-up Interviews
12		Pretest administered in group setting to intervention groups	Section 2: Making Decisions Session 7: Introduction to DO IT!		
13			Section 2: Making Decisions Session 8: Steps 1 & 2 of DO IT!		
14			Section 2: Making Decisions Session 9: Steps 3 & 4 of DO IT!		
15			Section 2: Making Decisions Session 10: Using DO IT!		
16		Pretest administered to control group	Section 2: Making Decisions Session 11: Real life stories to use DO IT!		
17			Section 2: Making Decisions Session 12: Giving informed consent		
18			Section 4: Goals, Objectives, and the Future Session 19: Identifying goals in your plan		
19			Section 4: Goals, Objectives, and the Future Session 20: Identifying goals for work		

Activities	Preparation Days	Pretest Administration	Intervention Days	Posttest Administration	Follow-up Interviews
20			Section 4: Goals, Objectives, and the Future Session 21: Identifying goals for more school		
21			Section 4: Goals, Objectives, and the Future Session 22: Identifying goals for living		
22			Section 4: Goals, Objectives, and the Future Session 23: Identifying goals for fun		
23			Section 4: Goals, Objectives, and the Future Session 24: Keeping track of your goals	Posttest administered in group setting to intervention groups	
24–28				Posttest administered to control group	Follow-up interviews conducted
29					

## APPENDIX 4

### DAY 1 — CONSENT FORMS, CODING, AND PRE-TEST

#### Making It Happen: Teaching Self-Determination Skills to Youth with Disabilities

1. Collect all student forms from the teacher. The forms will be in sealed envelopes, so open them and refer to the last page to find the student name.
2. Using the “Student Name, Student Code” list, record the names of the students from the permission slips under “Student Name.” List those students’ names that have turned in their informed consent, next to a BLACK code. ATTENTION: There are only enough supplies for 20 participants. Take note of how many extra and I can print additional materials on Monday.
3. If there are fewer than 20 students who have returned consent forms, ask the teacher if there are any students in the class who have not submitted consent forms. If so, list those students’ names in RED pen next to a RED code. They will still participate, but if they fail to submit a permission slip, their information will not be analyzed.
4. After all students have been assigned a code, using the “Student Name, Student Code” list, pass out Pre-Tests with the students matching code.
5. Ask the students to wait for directions.
6. Tell the students that you will read each question and they are to choose the best answer. Read each question and the choices; pause for to students to select answer.
7. At the end of the pre-test there are some demographic questions. Ask the students to fill those out as you read them. If they do not know the answer to a demographic question, suggest first that they ask their teacher and then tell them to choose the best answer.

After students have completed the pre-test and they have been gathered, provide a brief introduction about the next 12 days.



“Thank you for taking the pre-test. Just so you know, your score on that test will not be counted for your grade in any of your classes. I am (name) and I am a student at Auburn University. For the next 12 days, I will be teaching you about making decisions and setting goals for your future. You are all high school students so it is time you start thinking about your future. You will have a packet that we will work through each day and I will give a highlighter to help you keep up with important details. These lessons are meant to help you decide what you want to do. The important part of these lessons is that the decisions about your future should be made by YOU. So, I’m going to teach you how to do that.”

## APPENDIX 5

### SAMPLE GOALS

1. During the summer months (June and July) student will work with a carpet cleaning crew 2 times each week for 12 hours.
2. By the end of the school year, student will sign up for community square dance lessons.
3. Student will live with 3 friends in the Summer Place Apartments.
4. Student will join the local gym for the summer months (June and July) and exercise 4 times each week to improve health and relationships.
5. At the start of the second semester of the school year, student will work at Chik-fil-A 3 days each week for 4 hours.
6. After completing two years of training school, student will manage the family mechanic shop 5 days each week.
7. Student will build a house on the beach.
8. Within six months of graduating, student will score a passing grade on a test to become a paraprofessional in an elementary school.

APPENDIX 6

FIDELITY OF TREATMENT OBSERVATIONS

Rater Name \_\_\_\_\_

Date \_\_\_\_\_

Lesson Observation #1  
Whose Future is It Anyway?  
Section 2: Session 10 "Using DO IT"

Start time of lesson				Additional Comments
# of Students				
<b>Teacher Behavior</b>				
Lesson Description	Title of Lesson Stated	<b>Y</b>	<b>N</b>	
	Whose Future Goal 6 read aloud	<b>Y</b>	<b>N</b>	
	Instructor reads lesson aloud beginning on pg. 97 with "I'm back!"	<b>Y</b>	<b>N</b>	
When icons are used, instructor asks students to identify the picture.	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	
When questions are asked, instructor pauses for student responses, calls on students, and provides feedback.	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	
When curriculum indicates instructor will wait, instructor pauses.	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	
Instructor allows students to compile a list of things they need to know to live as an adult (p. 99).	<b>Y</b>	<b>N</b>		
Instructor allows follow-up time for students to identify which skills they can do and which skills they need to learn (p. 99).	<b>Y</b>	<b>N</b>		

Rater Name \_\_\_\_\_

Date \_\_\_\_\_

Instructor asks students to <i>prioritize</i> three things and reviews the correct order (p. 100).	<b>Y</b>			<b>N</b>					
Instructor provides time for students to prioritize their own list of skills they need to learn (p. 100).	<b>Y</b>			<b>N</b>					
Instructor reviews five questions learned in today's lesson with students (p. 101).	<b>Y</b>			<b>N</b>					
<b>Student Behavior</b>									
Time Sample-minutes	5	8	11	14	17	20	23	26	
<b>Active participation—student answering and communicating with instructor</b>									
	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	
<b>Student work—students working independently,</b>									
	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	
<b>Group work—students are working together in groups</b>									
	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
End time of lesson									

Rater Name \_\_\_\_\_  
 Date \_\_\_\_\_

Lesson Observation #2  
 Whose Future is It Anyway?  
 Section 4: Session 20 “Identifying Goals for Work”

Start time of lesson		Additional Comments		
# of Students				
<b>Teacher Behavior</b>				
Lesson Description	Title of Lesson Stated	<b>Y</b>	<b>N</b>	
	Whose Future Goal 15 read aloud	<b>Y</b>	<b>N</b>	
	Instructor reads lesson aloud beginning on pg. 193 with “Here I am again.	<b>Y</b>	<b>N</b>	
When icons are used, instructor asks students to identify the picture.	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	
When questions are asked, instructor pauses for student responses, calls on students, and provides feedback.	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	
When curriculum indicates instructor will wait, instructor pauses.	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	
Instructor reminds students of the WIGOUT strategy and asks them to identify what it stands for (p. 194).	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	

Rater Name \_\_\_\_\_  
 Date \_\_\_\_\_

Students are provided with a copy of their current IEP transition goals.	<b>Y</b>			<b>N</b>					
Instructor assists students in identifying any vocational or employment goals in their IEP (p. 193).	<b>Y</b>			<b>N</b>					
Instructor reviews the DO IT! process for students and encourages them to use it when identifying future goals (p. 195).	<b>Y</b>			<b>N</b>					
Instructor concludes session with four review questions (p. 196).	<b>Y</b>			<b>N</b>					
<b>Student Behavior</b>									
Time Sample-minutes	5	8	11	14	17	20	23	26	
Active participation—student answering and communicating with instructor	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	
Student work—students working independently,	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	
Group work—students are working together in groups	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
End time of lesson									

## APPENDIX 7

### SATISFACTION INTERVIEW PROTOCOL

#### “Whose Future is it Anyway?”

1. Tell me about the “Whose Future is it Anyway?” project that you participated in.
2. Would you like to always participate in a project like “Whose Future is it Anyway?”
3. What kind of things did you do in the “Whose Future is it Anyway?” project?
4. Do you feel you have changed or learned anything new since participating in the “Whose Future is it Anyway?” project?
5. What have been your favorite things about the “Whose Future is it Anyway?” project?



## SATISFACTION INTERVIEW PROTOCOL

### Mentoring Program

6. Tell me about the mentoring program that you participate in.
  
  
  
  
  
  
7. How often do you see your mentor/mentee? Only in mentoring sessions or in other areas of the school?
  
  
  
  
  
  
8. What kind of things do you do with your mentor/mentee?
  
  
  
  
  
  
9. Do you feel you have changed or learned anything new since having a mentor/mentee?
  
  
  
  
  
  
10. What has been your favorite things about having a mentor/mentee?
  
  
  
  
  
  
11. Do you think when learning about self-determination, like you did during instruction in “Whose Future is it Anyway,” it would be helpful for student to have peer mentors?

## APPENDIX 8

### CURRENT PRACTICES AND KNOWLEDGE SURVEY

#### Self-determination

Please respond to each question as completely as possible.

#### I. Respondent Information

1. What age group do you currently teach? (Check all that apply)

- 14–16 years       17–18 years       19 years and older

2. Is your **principal** teaching assignment at

- a middle school campus?  
 a junior high school campus?  
 a senior high school campus?  
 a postsecondary campus?  
 another setting? If so, what setting? \_\_\_\_\_

3. Were you trained as a special educator?     Yes       No

4. Your principal teaching assignment is with students identified in what primary disability category? (Check all that apply):

- |   |   |
|---|---|
| <input type="checkbox"/> Specific Learning Disabilities   | <input type="checkbox"/> Speech or Language Impairments |
| <input type="checkbox"/> Mental Retardation   | <input type="checkbox"/> Serious Emotional Disturbance  |
| <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe | <input type="checkbox"/> Traumatic Brain Injury         |
| <input type="checkbox"/> Multiple Disabilities  | <input type="checkbox"/> Hearing Impairments            |
| <input type="checkbox"/> Orthopedic Impairments   | <input type="checkbox"/> Visual Impairments             |
| <input type="checkbox"/> Autism   | <input type="checkbox"/> Deaf-Blindness                 |

5. Students for whom you are primarily responsible for instruction receive their instruction in which of the following educational environments? (These categories are directly from IDEA, and are defined below. Check only the most appropriate)

- |   |   |
|---|---|
| <input type="checkbox"/> Regular Class        | <input type="checkbox"/> Resource Room                  |
| <input type="checkbox"/> Separate Class       | <input type="checkbox"/> Separate School                |
| <input type="checkbox"/> Residential Facility | <input type="checkbox"/> Homebound/Hospital Environment |

**Regular Class:** Includes students who receive the majority of their education program in a regular classroom and receive special education and related services outside the regular classroom for less than 21% of the school day.

**Resource Room:** Includes students who receive special education and related services outside the regular classroom for at least 21% but no more than 60% of the school day.

**Separate Class:** Includes students who receive special education and related services outside the regular classroom for more than 60% of the school day.

Adapted from (Wehmeyer, Agran, & Hughes, 2000)

**Separate School:** Includes students who receive education in private and public separate day schools for students with disabilities for more than 50% of the school day.

**Residential Facility:** Includes students who receive education in a public or private residential facility, at public expense, for more than 50% of the school day.

**Homebound/Hospital Environment:** Includes students placed in and receiving special education in hospital or homebound programs.

6. Which setting best describes the location of your principal teaching assignment?

- Urban                       Suburban                       Rural

7. How many students are you directly responsible for teaching? \_\_\_\_\_

8. What content or curricular area are you responsible for implementing with students? (Check all that apply).

- Academic     Vocational/Transition  
 Social Skills Instruction                       Health/Physical Education  
 Functional Life Skills/Community-Based Instruction  
 Other (Please specify) \_\_\_\_\_

9. Are your students most frequently taught using (Check all that apply):

- one-to-one instruction                       small group instruction  
 whole group instruction                       individual seatwork

10. Do you currently, or have you in the past, used peers as a resource to teach students with disabilities?

- Yes                       No  
(Go to Question 12)                      (Go to Question 13)

11. If yes, please describe how peers were used \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## II. Teaching Self-Determination

12. Are you familiar with the term 'self-determination'?                       Yes                       No  
(Go to Question 14)                      (Go to Question 16)

13. If yes, from what source have you heard the term? (Circle all that apply).

- Undergraduate training                       Graduate training  
 District inservice                       Conference or workshop  
 Education text                       Professional journal articles  
 Colleagues                       Other \_\_\_\_\_

14. If yes, how would you define self-determination? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

15. How important do you think teaching component elements of self-determined behavior is, compared with other instructional areas? Circle only one response for each domain.

Adapted from (Wehmeyer, Agran, & Hughes, 2000)

- a. *Choice-Making* (Teaching students to identify interests, express preferences, make choices; Structuring instructional activities to provide students the opportunity to select preferences).
- |     |   |        |   |   |      |
|-----|---|--------|---|---|------|
| 1   | 2 | 3      | 4 | 5 | 6    |
| Low |   | Medium |   |   | High |
- b. *Decision-Making* (Teaching students to make effective decisions, providing opportunities to participate in making decisions about their education and post-school life).
- |     |   |        |   |   |      |
|-----|---|--------|---|---|------|
| 1   | 2 | 3      | 4 | 5 | 6    |
| Low |   | Medium |   |   | High |
- c. *Problem-Solving* (Teaching students to systematically solve problems, providing opportunities to participate in problem-solving activities).
- |     |   |        |   |   |      |
|-----|---|--------|---|---|------|
| 1   | 2 | 3      | 4 | 5 | 6    |
| Low |   | Medium |   |   | High |
- d. *Goal Setting and Attainment* (Teaching students to set and track goals, participate in goal-setting activities, develop plans to achieve goals).
- |     |   |        |   |   |      |
|-----|---|--------|---|---|------|
| 1   | 2 | 3      | 4 | 5 | 6    |
| Low |   | Medium |   |   | High |
- e. *Self-Advocacy and Leadership Skills* (Teaching students to know and stand up for their rights, to communicate effectively and assertively, to be an effective leader or team member).
- |     |   |        |   |   |      |
|-----|---|--------|---|---|------|
| 1   | 2 | 3      | 4 | 5 | 6    |
| Low |   | Medium |   |   | High |
- f. *Self-Management and Self-Regulation Skills* (Teaching students to monitor and evaluate their own behavior, select and provide their own reinforcement, set their own schedule, and to self-direct learning through strategies like self-instruction).
- |     |   |        |   |   |      |
|-----|---|--------|---|---|------|
| 1   | 2 | 3      | 4 | 5 | 6    |
| Low |   | Medium |   |   | High |
- g. *Self-Awareness and Self-Knowledge* (Teaching students to identify their own strengths and limitations, to identify their own preferences, interests, and abilities, and to apply that knowledge to their advantage).
- |     |   |        |   |   |      |
|-----|---|--------|---|---|------|
| 1   | 2 | 3      | 4 | 5 | 6    |
| Low |   | Medium |   |   | High |
16. How much will teaching your students self-determination prepare them for school?
- |             |   |                  |   |              |   |
|-------------|---|------------------|---|--------------|---|
| 1           | 2 | 3                | 4 | 5            | 6 |
| Not Helpful |   | Somewhat Helpful |   | Very Helpful |   |
17. How much will teaching self-determination prepare your students for post-school life?
- |             |   |                  |   |              |   |
|-------------|---|------------------|---|--------------|---|
| 1           | 2 | 3                | 4 | 5            | 6 |
| Not Helpful |   | Somewhat Helpful |   | Very Helpful |   |
18. How many of the students you currently teach have a self-determination related goal on their IEP or transition plan?    None        Some        All

Adapted from (Wehmeyer, Agran, & Hughes, 2000)

19. Have you taught any of the following self-management strategies to the students you currently teach or have taught previously?

- |  |  |
|--|--|
| a. Self-monitoring (student records how often a behavior is performed)   | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| b. Self-evaluation (student evaluates own behavior, effort, or progress) | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| c. Self-reinforcement (student selecting or providing own reward)        | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| d. Self-instruction (student guides their performance through self-talk) | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| e. Goal setting or contracting (student sets own instructional goal)     | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| f. Self-scheduling (student sets own daily schedule)                     | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| g. Antecedent cue regulation (using picture cues to direct behavior)     | <input type="checkbox"/> Yes <input type="checkbox"/> No |

20. What reasons might lead you to decide **not** to provide instruction in any or all of the above self-determination areas or to teach self-management strategies? (Check all that apply).

- Your students already have adequate self-determination skills.
- Someone else is responsible for instruction in this area.  
If you checked this, please list responsible party. \_\_\_\_\_
- You don't have sufficient time to provide instruction in these areas.
- You don't have the latitude to provide instruction in these areas (e.g., because of course content requirements, state testing requirements, etc.).
- There are other areas in which your students need instruction more urgently.
- Your students would not benefit from instruction in these areas because of their characteristics (level of ability, capacity to engage in behavior, etc.).
- You haven't had sufficient training or information on teaching self-determination.
- You are not aware of available curricular or assessment materials, or familiar with instructional methods or strategies related to self-determination.
- None of the above.

21. What other strategies or activities have you implemented that might promote self-determination?

- Student involvement in educational planning meetings.
- Structuring classroom environment to promote student-directed learning
- Instructional activities in non-school settings
- Mentoring programs
- Other \_\_\_\_\_