UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

COLLEGE STUDENTS WITH DISABILITIES: BUILDING SELF-DETERMINATION AND SELF-EFFICACY

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

Doctor of Philosophy

By

LORI Y. PETERSON
Norman, Oklahoma
2004

ProQuest Information and Learning Company
300 North Zeeb Road
PO Box 1346
Ann Arbor, MI 48106-1346

COLLEGE STUDENTS WITH DISABILITIES:
BUILDING SELF-DETERMINATION AND SELF-EFFICACY

A Dissertation APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

BY

James E. Martin, Ph.D.

Christine K. Ormsbee, Ph.D.

David L. Lovett, Ph.D.

Barbara. A. Greene, Ph.D.

Elizabeth H. Willner, Ed.D.

ACKNOWLEDGEMENTS

I wish to acknowledge my committee for their endless guidance and mentorship. To Dr. James E. Martin, chair of my doctoral committee, thank you for the *opportunities* and your belief in my ability, I would not be here without you. Thank you, Dr. Christine K. Ormsbee for inspiring me; Dr. David L. Lovett for keeping me balanced; Dr. Barbara. A. Greene for always being available to offer advice; and Dr. Elizabeth H. Willner for sharing your energy and enthusiasm.

I extend my gratitude to the University of Oklahoma College of Education, Department of Educational Psychology, and the Graduate College for their commitment to supporting the professional development of their students.

A special thanks to the Maxine and Jack Zarrow Family Foundation, and the Anne and Henry Zarrow Foundation of Tulsa, Oklahoma who generously support the success of individuals with disabilities; PRO-ED publisher for their continued dedication to educational excellence; and Winnelle Carpenter for believing in the power of self-awareness.

It is important that I acknowledge the students who participated in this project, for taking a risk to seek support and being open to learning more about themselves. Thanks for sharing your lives with me.

To the Zarrow Center, I have enjoyed being a part of your professional family. Thank you, Linda for your constant encouragement to *be brilliant*, Lee for the *Colorado connection* and your invaluable contributions to the project, and Rosemary for your friendship and willingness to lend a helping hand.

To Jamie, Joyce, and Regina, there certainly was a lot of *honking* going on. Regina, thank you for leading the way. Joyce, I am grateful for your insight and encouragement. Jamie, I will never be able to thank you enough, as I have said before, I am so fortunate to have taken this journey with you.

My appreciation to my family and friends for always believing in me. This degree would not have been possible without your love and support. Mom and Dad you have always been there for me and blessed me with your unconditional love, *we always have each other*. Daddy and Aunt Marti your pride and love for me, and your commitment to my education mean so much. Ralph and Helen, thank you for your love and encouragement, and sharing my passion for education. Bret, my brother, you will always be my hero. Grandma Gwen, thank you for your love, and teaching me to stay upright while *roller-skating* through the bumps in life. Joyce and Rob your thoughtfulness and friendship continue to amaze me.

To Kurt, my husband, supporting each other's dreams has not always been easy. Our love continues to see us through and grows stronger with each challenge we face. Thank you for having this *dance* with me.

TABLE OF CONTENTS

LIST OF TABLES

Table Page

LIST OF FIGURES

ABSTRACT

The successful pursuit of postsecondary opportunities for students with disabilities requires providing supports beyond the typical academic accommodations. Equal access to postsecondary education should include developing support systems, and providing strategy and self-determination instruction specific to the individual needs of students with disabilities. This study employed quantitative and qualitative procedures to determine if implementation of a support network and direct services for developing critical self-determination skills among four university students with learning disabilities and/or attention deficit disorders would increase their: (1) level of self-determination, (2) level of self-efficacy regarding perceptions of college performance, (3) level of persistence regarding perceptions of college performance, (4) level of self-efficacy regarding perceptions of personal disability, and (5) study behavior percentile scores.

Inconsistencies in student participation resulted in a need for additional inquiry to determine the factors impacting student participation, perceptions of project benefits, and suggestions for improving the project. Students reported issues of time management and personal investment as factors interfering with project participation. While no statistically significant results were found, meaningful increases in students' pre to post self-determination, perceptions of college performance, academic persistence, and perceptions of personal disability student self-determination scores occured. Student perceptions of project benefits included acquisition of self-determination skills and access to support systems. Students' acquisition of self-determination skills supported the identification of their strengths and challenges, and strategies to address their challenges and validate their strengths. To recruit new students to a program of this type, project participants recommended several methods of advertising the project. In addition, student

recommendations indicated a need for an in-depth overview of project activities. Results of this study provide suggestions for the development and implementation of support networks and self-determination instruction for students with learning disabilities and/or attention deficit disorder in a university setting.

CHAPTER ONE

College Students with Disabilities and Self-Determination

Opportunity is the key that opens the door for productive engagement in life. It is the unspoken force behind the Individuals with Disabilities Education Act of 1997 (IDEA), the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990 (ADA). Within these legislative documents exist guidelines for the provision of *opportunities* for individuals with disabilities. The foremost purpose of IDEA ensures students have a Free Appropriate Public Education (FAPE). FAPE constitutes equal access or the *opportunity* for education. The Rehabilitation Act dictates individuals with disabilities be given equal access to federally funded education and employment programs; again *opportunity*. ADA expands the mandates of the Rehabilitation Act by supporting *opportunities* in the education and employment private sector. These legislative documents provide the blueprint for developing vehicles of opportunity for individuals with disabilities. Constructing the opportunities for individuals to be productively engaged in life requires access to knowledge (Greenspan, 2004).

Increased opportunities and the pursuit of knowledge has more students, including those with disabilities, attending postsecondary education then ever before (Henderson, 2001; Horn, Berktold, & Bobbit, 1999; U.S. Department of Education, 2003). From 1972 to 2001 the number of high school graduates transitioning to college increased from 49% to 62% (U.S. Department of Education, 2003). In 1978 only 2.6% of high school graduates with disabilities attended postsecondary education. By the mid 1990's, the number of high school graduates with disabilities transitioning to a variety of postsecondary educational settings had risen to 19% (Stodden, 2000). Five to ten years

after high school students with learning disabilities were less likely to have attended four-year college programs (5 years = 8.5%; 10 years = 6%) than their nondisabled peers (5 years = 62.1%; 10 years = 52.6%), with the majority of students with learning disabilities having attended community colleges (Murray, Goldstein, Nourse, & Edgar, 2000).

In 2000, about six percent of first year freshmen at four-year institutions reported having a disability (Henderson, 2001). When compared to their non-disabled peers, a smaller percentage of students with disabilities completed postsecondary education (Horn, et al., 1999; Murray, et al., 2000). In 1994, 53% of students with disabilities and 64% of students without disabilities enrolled or had attained a postsecondary education degree (Horn et al., 1999). Murray et al. (2000) reported that five years after high school only 3.6% of students with learning disabilities had graduated from community or four-year colleges compared to 11.8% of students without disabilities graduating from community colleges and 24.2% from four-year colleges. Ten years after high school 11.9% of students with learning disabilities had completed a community college program and 2.4% a four-year college program, which is still significantly less than the 55.9% of non-disabled peers who had completed a postsecondary degree (Murray et al., 2000). Because fewer students with disabilities complete postsecondary education, retention in postsecondary education requires investigation. Specifically, this investigation needs to address: (1) Why do fewer students with disabilities complete postsecondary education programs when compared to their non-disabled peers, and (2) What can educators do to increase the number of students with disabilities completing postsecondary education? Existing research identifying specific characteristics supporting student success in postsecondary education programs provides insight into answers for these questions.

Success Characteristics and Challenges

Research involving college students with and without disabilities identified the need for specific skills and strategies to support student success in postsecondary settings (Lehman, Davies, Laurin, 2000; Nelson, Smith, Appleton, & Raver, 1993; Peterson & Van Dycke, 2004; Raskind, Goldberg, Higgins, & Herman, 1999; Reis, Neu, & McGuire, 1997; Spekman, Goldberg, & Herman, 1992). The following studies identify student success characteristics and challenges. This research provides a guide to create supportive opportunities that may increase the likelihood of postsecondary success.

Success Characteristics

Spekman et al. (1992) employed both quantitative and qualitative methods to research factors related to success and life satisfaction in young adults with disabilities. Fifty students between the ages of 18 and 25 who had previously been enrolled in the Marianne Frostig Center for Educational Therapy School participated in a ten-year follow-up study. These former students had identified learning disabilities and an IQ of 85 or greater. Spekman et al. collected data using student records, personal interviews, parent rating scales, and limited cognitive and academic screening. Student interviews, lasting between one and four hours, provided information about student perceptions of past and current educational, employment and social experiences, and future plans. Rating scales provided the parent's perspective of the student's confidence and social, academic, and employment abilities and satisfaction. Forty of the 50 students completed subtests of the Wechsler Adult Intelligence Scale - Revised (WAIS- R) Vocabulary and Block Design and Wide Range Achievement Test - Level II (WRAT-Level II) Reading to provide an estimate of their current IQ.

From this data, the researchers categorized the former students with LD into successful and unsuccessful groups. Those in the successful (SS) group participated in age appropriate activities, reported being satisfied with life, and engaged in educational, employment, and social activities that matched their beliefs, interests, goals, and skills. Unsuccessful (US) group students experienced difficulty with age-appropriate activities, reported being dissatisfied with life, and did not participate in activities related to their beliefs, interests, goals, and skills. No differences existed between groups based on individual scores from the WAIS – Revised Vocabulary and Block Design and the WRAT-Level II Reading. Spekman et al. found statistically significant differences in education and employment between the two groups ($\chi^2 = 9.59$, $df = 4$, $p < .01$). Successful students were more likely to be involved in both school and work activities (SS: 46.4%; US: 28.6%) or work activities alone (SS: 17.9%; US: 9.5%) than unsuccessful students. All successful students reported engagement in work or school activities compared to 23.8% of the unsuccessful students. While the majority of individuals in both groups attended some type of postsecondary education or training, significantly more students in the successful group had attended or completed a four-year degree program compared to the unsuccessful group ($\chi^2 = 8.58$, $df = 7$, $p < .05$). Parent self-confidence, social and employment abilities, and satisfaction ratings yielded significantly lower scores for unsuccessful students than the successful group. Parents reported no significant differences in academic areas between the successful and unsuccessful groups.

Through interviews three common characteristics of individuals with learning disabilities became apparent. First, effects of a learning disability are ongoing. Second, individuals with learning disabilities face additional life stressors. Third, individuals with

learning disabilities tend to be late-bloomers in social, employment, and independent living.

Spekman et al. compiled three themes supporting success. The first theme, adaptation of life events, included the former student's self-awareness and acceptance of their disability, proactive behavior, perseverance, and emotional stability. The second theme focused on students' ability to set goals and act in a goal directed manner. The third theme involved students' use of effective support systems. These findings suggest that while students with learning disabilities face long-term challenges, the successful former students used specific skills to overcome these challenges.

Raskind, Goldberg, Higgins, and Herman (1999) expanded on Spekman et al. (1992) research and conducted a 20-year follow-up study of 26 former Marianne Frostig Center students. Raskind et al. (1999) conducted detailed interviews and evaluated transcripts for the presence or lack of success characteristics. They sought the success characteristics identified in the Spekman et al. study as "employment, education, independence, family relationships, community relations/interests and crime/substance abuse," (Raskind, et al. 1999, p. 38) with the addition of physical and psychological health. Researchers collected data from a life stressor checklist, current intelligence and achievement tests, and reviews of case and public records. Researchers classified each participant as successful or unsuccessful.

Raskind et al. (1999) used descriptive statistics and a repeated measures analysis of variance (ANOVA) to evaluate changes in participant data across four points in time; (1) entry into the Frostig Center, (2) leaving the Frostig Center, (3) 10 years after leaving, and (4) 20 years after leaving. Findings indicated that stress related to an individual's

learning disability decreased with age. Academic acquisition rates fluctuated, but actual academic ability remained fairly stable over time. Chi square and independent *t* tests indicated no significant differences in life stressors among successful and unsuccessful individuals. However, successful individuals were significantly more likely to be employed ($p = .0002$), have a higher level of education ($p = .0001$), have higher reading ($p = .03$) and math ($p = .05$) skills, live independently ($p = .05$), and be involved in the community ($p = .05$).

Raskind et al. (1999) employed a variety of analysis procedures in order to determine predictors of success. Stepwise regression analysis found a significant relationship between success attributes and the successful/unsuccessful variables ($R^2 = .748$, $p < .0001$). The researchers found that self-awareness, proactivity, perseverance, goal-setting skills, the presence and use of effective support systems, and emotional stability predicted success. These findings were consistent with those of Spekman et al. in the 10-year follow up study.

Nelson, Smith, Appleton, and Raver (1993) interviewed 36 students registered with disability support services office at a northwestern university regarding their beliefs about academic success. They interviewed students individually for approximately one hour using a 12 question protocol covering demographic information, academic performance beliefs, and social support and school climate. Analysis of the interview data followed an analytic deductive strategy to identify primary factors and explanations. They found that college students with disabilities primarily attribute academic success to psychological beliefs and sociological factors. Psychological beliefs included discipline and effort, acceptance of disability, personal ambition, self-confidence, prior knowledge,

and ability. Sociological factors related to family support, interaction with other students, interaction with faculty, and university support services. More than 50% of the participants cited discipline and effort, acceptance of disability, personal ambition, family support, and interaction with other students as factors relating to academic success.

Similarly, Reis, Neu, and McGuire (1997) found that high-ability college students with learning disabilities identified specific qualities supporting their success despite their negative educational experiences. Reis et al. (1997) used open-ended questionnaires and interviews to determine the experiences and perceptions of 12 college students with learning disabilities. The 12 participants each had an identified learning disability, and had previously been identified with a high IQ. In addition to the questionnaire and interview, researcher's interviewed one or both of each participant's parents. The researchers analyzed collected data using open coding, axial coding, and selective coding methods.

Reis et al. (1997) organized responses into two categories: (1) negative school experiences and (2) integration of personal traits. Negative school experiences included those that occurred during their elementary, middle, and secondary school education. Most of the students stated having been referred for academic difficulties at a young age, but were not formally identified as having a learning disability until middle school, high school, or even college. Students received instruction in a variety of educational settings including the general education class with resource services, and self-contained classrooms with students with more significant cognitive disabilities. Students who received educational services with students who had more significant cognitive disabilities felt confused about their abilities and upset about being taught with students

who had more significant learning difficulties. The majority of students expressed negative opinions about being tracked in lower level academic groups and several of the students had negative memories associated with repeating a grade. All 12 participants reported having negative interactions with some of their teachers and many had difficulty interacting with peers as well. Negative interactions tended to revolve around the student's academic abilities or right to receive special education services. Students reported their learning disabilities mainly effected their reading and writing skills. Difficulties in these areas directly impacted their education, and the students were not able to understand how they could have reading and writing challenges while having high mathematical and verbal abilities.

The second category, integration of personal traits, defined characteristics the students attributed to their success. All or the students reported the use of compensation and learning strategies, and participation in the University Learning Disability Program (UPLD) as factors related to college success. Students participated in the opportunities provided by the UPLD to learn study strategies and access support systems. Reis et al. mentioned the use of multiple learning and compensatory strategies by students, but emphasized that each student used the strategies that worked best for them. Another success characteristic identified by all students in the study was the support present by one or both parents. In all cases the students' mothers provided academic support as where fathers only provided support in about 50% of the cases. The majority of students felt their strong work ethic, which developed from addressing the academic challenges presented by their learning disabilities, had the most influence on their ability to be successful in college.

More recently, Peterson and Van Dycke (2004) conducted individual interviews and a focus group of academically successful university students with and without disabilities to identify self-determination skills and other factors that supported their success. Researchers selected participants based on their junior, senior, or graduate student ranking and academic good standing status. Students participated in an hour long individual interview or focus group meeting. Five students without disabilities and one student with a learning disability participated in the individual interviews. During individual interviews, the researcher asked students approximately 10 questions regarding success characteristics. The focus group consisted of three students without disabilities and one student with a disability. Participants in the focus group responded to and discussed two questions relating to success. Researchers analyzed collected data by coding common themes across participants. Consistent themes were found across both the interviews and focus group.

Four themes related to success for post secondary students emerged: (1) the praise that pushes, (2) mental toughness, (3) self-cognition, and (4) dive in but have a plan. The praise that pushes, the most predominant theme identified by students, honors all of the family members, friends, and mentors who are each student's support systems. The second most common theme related by participants, mental toughness, encompasses a group of five subthemes. Within mental toughness students reported success supported by their internal drive. Students internal drive involved their ability to be goal oriented and motivated, and to persevere, adjust or adapt, and address challenges. Student's self-cognition or internal awareness supported their success by providing information on which to base choices, set goals, and guide performance. While not the primary factor

reported by students, dive in but have a plan addressed students' use of strategies for learning and studying. Strategies students reported using included attending class regularly, taking notes, identify key points in information, study (independent and group), prioritizing activities and tasks, being organized, planning, and having fun. These themes suggest support systems and self-determination skills are evident in academically successful postsecondary students.

Challenges Impeding Success

Lehman, Davies, and Laurin (2000) held a half-day focus group or summit with 35 college students with disabilities to gain insight into student personal, academic, and support needs, barriers, and future visions. Student participants, who attended a community college or university, had a variety of cognitive, auditory, visual, and physical disabilities. Researchers randomly assigned students into groups of five people. They asked each group to answer three questions relating to barriers in college, difficulties for students not identified with a disability until after high school, and difficulties with transitioning between colleges or into a job. During the group discussions, researchers found college barriers were the same for students regardless of the age at which their disability was identified. Once groups had answered the questions, researchers asked them to select pictures from magazines representing barriers and pictures representing strategies to support the accomplishment of academic and career goals.

They identified four major themes from the group discussions and collages: (1) lack of understanding and acceptance, (2) lack of adequate services, (3) need for financial resources, and (4) need for self-advocacy skills. The first theme, lack of understanding and acceptance, encompassed barriers such as small-mindedness of other

individuals, the viewpoint of disability being associated with incompetence, frustration from instructors who are not knowledgeable of supporting students with disabilities, and damage from instructors who lack an understanding of student's needs. The second theme, lack of adequate services, included services necessary for overcoming both academic and non academic challenges. Students reported that college faculty and staff required more training and support to specifically assist students with disabilities in academic support labs. Students discussed the inability to locate services for transportation and access buildings, restrooms, adaptive computer equipment, and medical and dental services. They recommended the need for networking and mentors from which they could learn how to locate and access services. A significant issue for students related to acquisition of documentation of disability. Students reported not having high school records and the knowledge of strategies or accommodations to support their learning. They identified a need for assessment services at the postsecondary level. The third theme, need for financial resources, found students lacked the skills to manage and budget effectively, had insufficient income for life necessities, and had few opportunities for employment. Employment opportunities were limited by students' disabilities, financial benefit services, and lengthy studying and tutoring time. The fourth theme, the need for self-advocacy skills, related to all barriers recognized by students. Students indicated the need to learn and acquire self-advocacy skills in order to better understand their disability, communicate their needs and strengths, gain access to supports, and educate others regarding their disability. Based on these themes the authors developed a support plan including training for students, secondary teachers, and postsecondary faculty and other relevant topics.

Cumulative findings reported by the previous studies acknowledge the need for specific inter and intra personal skills and learning strategies to enhance the likelihood of success for postsecondary students with disabilities (Lehman, et al., 2000; Nelson, et al., 1993; Peterson & Van Dycke, 2004; Reis, et al., 1997; Spekman, et al., 1992). These specific skills identified relating to student academic success, are more powerful indicators of *life success* than high IQ, academic achievement, socioeconomic status, and ethnicity (Raskind, Goldberg, Higgins, & Herman, 2002). When viewed together, it becomes apparent the common thread running through these identified characteristics of success is self-determination. Table 1 depicts the link between reported characteristics of success and the skills Field, Martin, Miller, Ward, and Wehmeyer (1998) associated with self-determination. Houchins (1998) and Sarver (2000) provide evidence for the relationship between self-determination and academic performance.

Houchins (1998) used an experimental pre-post control group design to examine the effects of the *Steps to Self-Determination* curriculum (Field & Hoffman, 1996) on the self-determination level of youth who had been adjudicated. A total of 47 youths between the ages of 13 and 18 in a residential treatment facility participated in the study. Houchins used the *Self Determination Knowledge Scale* (Hoffman, Field, and Sawilowsky, 1996) to assess students' pre and post self-determination knowledge level. Students in the experimental group participated in self-determination lessons once a day for a period of four weeks. Results of an analysis of covariance indicated no significant differences between the experimental and control groups on posttest self-determination levels $F(1, 41) = .003$, $p > .05$. Among his additional findings, Houchins (1998) reported

Table 1

Relationship of reported characteristics of success and the skills associated with self-determination

Postsecondary Student Characteristics of:			**Self-Determination Skills**								
			Self-Aware	Make Choices	Set Goals	Self-Efficacy	Motivated	Self-Advocate	Access Supports	Address Challenges	Persists
Success	Spekman, Goldberg, & Herman (1992); Raskind, Goldberg, Higgins, & Herman (1999)	Realistic adaptation to events in life, emotional stability.	X	X						X	X
		Self-awareness and acceptance of disability.	X								
		Proactive decision making and actively engaged in life events.	X	X			X			X	X
		Perseverance.								X	X
		Appropriate goal setting and goal oriented.	X	X	X	X	X			X	X
		Access and use effective support systems.	X					X	X		
	Nelson, Smith, Appleton, & Raver (1993)	Strong work ethic and effort					X			X	X
		Acceptance of disability	X								
		Personal ambition			X	X	X			X	X
		Self-confidence				X					
		Family support							X		
		Interaction with other students							X		
	Reis, Neu, & McGuire (1997)	Compensation strategies – including computers, word processors, books on tape, and self-advocacy.						X	X	X	
		Compensation strategies – including computers, word processors, books on tape, and self-advocacy.						X	X	X	

Table 1 (Continued)

Postsecondary Student Characteristics of:			Self-Determination Skills								
			Self-Aware	Make Choices	Set Goals	Self-Efficacy	Motivated	Self-Advocate	Access Supports	Address Challenges	Persists
Success	Reis, Neu, & McGuire (1997) Continued	Learning strategies – including studying methods, note taking, and identifying key points.						X	X	X	
		Executive functions – including planning techniques, metacognition, and prioritizing.	X	X	X						
		Parental support.							X		
		Participation in the University Learning Disability Program.	X					X	X	X	
		Self-perceived strength.	X			X					
		Future aspirations.	X	X	X		X				
	Peterson & Van Dycke (2004)	Interpersonal support							X		
		Internal Drive			X		X			X	X
		Internal Awareness	X								
		Application of Strategies							X		
Challenge	Lehman, Davies, & Laurin (2000)	Lack of understanding of disability by people, students, staff, and faculty.						X		X	
		Lack of adequate services for academic and nonacademic responsibilities.						X	X	X	
		Lack of financial resources for self-sufficiency and knowledge to acquire.						X	X	X	
		Lack of self-advocacy skills and self-advocacy training.						X	X	X	

a significant linear relationship between participant math scores and self-determination knowledge pretest scores, $F(1, 32) = 10.247$, $p = .003$ and posttest scores, $F(1, 32) = 13.902$, $p = .001$. In addition, Houchins found that participants reading scores had a significant linear relationship with their self-determination knowledge pretest scores, $F(1, 33) = 23.538$, $p = .000$ and posttest scores $F(1, 33) = 36.500$, $p = .000$. In both cases, Houchins suggested that it may be possible to predict students' self-determination by their math and reading scores.

Sarver (2000) used both quantitative and qualitative research procedures to investigate factors relating to self-determination and the academic success of university students with learning disabilities. Quantitative measures compared students' scores on the *Self-Determination Student Scale* (S-DSS) (Hoffman & Field, 1995) to their grade-point average (GPA), and the number of accommodations they received from the office of disability services. Eighty-eight students ranging in age from 19 to 24 years completed the quantitative measures. Sarver identified four of the 88 students through a multistage cluster sampling procedure to participate in the qualitative interviews and survey of *Self Determination Developmental Factors.*

Results of Sarver's (2000) quantitative analysis identified a significant positive relationship between student scores on the S-DSS and GPA, r (86) = .2859,$p = .0069$. Findings did not support a significant relationship between students' S-DSS scores and the number of accommodations they received from disability services when calculated based on six accommodations, r (86) = -0.05628, $p = .60251$ or seven accommodations, r (86) = -0.03979, $p = .7128$. Results of the qualitative analysis identified predominant themes relating to two categories: (1) Features of Institutional Support Related to

Academic Success, and (2) Personality Markers for Academic Success. In the first category, *Features of Institutional Support Related to Academic Success,* students identified the environmental factors of institutional infrastructures, social support systems, and role of faculty influenced their self-determination and academic success. In the second category, *Personality Markers for Academic Success,* students reported that the internal variables of autonomy, locus of identity, goal selection and implementation, and resilience in response to failure impacted their self-determination and academic success. Based on her findings, Sarver proposed *A Model for Coordinated Services for University Students with Learning Disabilities* to develop student levels of self-determination that are sufficient for academic success.

Findings from the previous studies clearly suggest the necessity of self-determination skills to advance the academic access and success of individuals with disabilities. For students the outcome associated with knowledge gained through education is the productive engagement in life activities. Educational opportunities are only the beginning to *life opportunities*. Acquisition of self-determination skills may not only support successful educational experiences, but enhance future adult outcomes.

Educational Outcomes and Self-Determination

Research and literature abound with discussions of increasing student outcomes, one of which is self-determination. In the last 10 to 15 years, both self-determination and educational outcomes have been discussed with increasing frequency. Even current education legislation discussion centers around increasing student outcomes. When we use the terms self-determination and educational outcomes, what are we really talking about? Self-determination is conceptualized in many different theoretical perspectives,

and educational outcomes represent a variety of goals that educators strive to achieve. To comprehend the relationship between self-determination and increased student educational outcomes, it is first necessary to gain an understanding of their interpretations and theoretical foundations. Following this discussion, a summary of the few research studies that exist to support this relationship will be presented.

Educational Outcomes

What are educational outcomes? In the basic sense outcomes are "something that follows as a result or consequence" (Mish, 2001, p. 823). This definition implies educational outcomes are the things that occur because of the education or instruction a person receives. This coincides with the National Center on Educational Outcomes interpretation where outcomes are results of educational or schooling experiences (D. Scott, personal communication, August 6, 2003). While these statements define educational outcomes, they do not provide specific information that can be used to measure whether or not an increase has occurred nor do they communicate meaningfulness of such outcomes for students. Several sources offer statements regarding educational outcomes that are measurable and meaningful to an individual's quality of life.

Quality of life is related to post-school educational experiences, employment, marital status, children, independence, and satisfaction with present lifestyle (Rogan & Hartman, 1990). Schalock (1996) identified eight quality of life principles: emotional, physical and material well-being, personal development, interpersonal relationships, social inclusion, rights, and self-determination. These factors encompass outcomes for

individuals with disabilities addressed by the Individuals with Disabilities Education Act (IDEA).

In its purpose statement IDEA acknowledges educational outcomes by ensuring "all children with disabilities have available to them a free appropriate public education that emphasizes special education and related services designed to meet their unique needs and prepare them for *employment* and *independent living* [italics added] " (*Federal Register*, 34 C.F.R. § 300.1, 1999, p. 12420). IDEA further elaborates outcomes to state that transition services need to be "designed within an outcomes oriented process, that promotes movement from school to post-school activities, including post-secondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation" (*Federal Register*, 34 C.F.R. § 300.29, 1999, p. 12425). Not only are these factors of educational outcomes meaningful to post-school experiences, they are specific enough to allow educators and researchers the opportunity to measure their occurrence. Within these definitions, it is important to emphasize that the positive nature of outcomes may vary depending on individual preferences, interests, and goals (Wagner & Blackorby, 1996; Wehmeyer & Schalock, 2001).

Self-Determination

Self-determination as an outcome encompasses different meanings and expectations (Wehmeyer, 1996; Hughes & Agran, 1998). Perhaps this is due to self-determination being a concept applied in many different contexts. While self-determination has become increasingly important to the field of education, particularly

special education, its roots formed outside the field. It is helpful to organize the different theoretical perspectives on self-determination.

Martin, Mithaug, Oliphint, Husch, and Frazier (2002) suggest that self-determination has been conceptualized at macro and micro levels. The macro level of self-determination refers to a society of people and the governance of that society to determine its outcomes. Micro self-determination is specific to the individual and the ability to be determined. Both macro and micro levels of self-determination are present in the organization of self-determination presented by Wehmeyer, Martin, and Sands (1997). Wehmeyer et al. (1997) discussed theoretical perspectives of self-determination as: (a) a human right, (b) motivation for learning, and (c) an educational outcome. The following is a discussion of each of these self-determination perspectives. Within these theoretical perspectives an understanding of the concept of self-determination and the relationship between self-determination and educational outcomes appears.

Self-determination as a human right. According to Walden (2002), self-determination had beginnings as early as the 1700's with the philosopher John Locke who proposed that men were able to determine their lives. This determination can occur for a group of people (macro) or an individual person (micro). Following World War I, President Woodrow Wilson put forth in his Address to Congress the macro level idea of self-determination when he discussed the right of people to consent to government (President Wilson's Address, 1918). More than sixty years later this macro level of self-determination began its movement towards individuals with disabilities in the normalization of human services. Nirje (1972) stated "one major facet of the principle of normalization is to create conditions through which a handicapped person experiences the

normal respect to which any human being is entitled" (p. 177). This statement includes not only the right of individuals with disabilities to participate in the determination of society, but the right to micro level self-determination.

Self-determination as a motivation for learning. Deci and Ryan (1994) theorize a micro level of self-determination that focuses on intrinsic and extrinsic motivation by meeting the basic psychological need for competence, autonomy, and relatedness. Performance based on intrinsic motivation, finding the task interesting and satisfying, results in meeting these basic psychological needs, self-determined behavior, and "high-quality learning and creativity" (Ryan & Deci, 2000a, p. 55). However, Ryan and Deci (2000a) note that many educational tasks are not intrinsically motivating for students; as a result educators rely upon extrinsic motivation.

Extrinsic motivation is the attainment of an independent reward (Ryan & Deci, 2000a). Ryan and Deci's (2000a) theory of self-determination proposes four types of extrinsic motivation: (1) external regulation, (2) introjection, (3) identification, and (4) integration. These four types of extrinsic motivation range from the primarily externally oriented to largely internally integrated. Externally regulated and introjection are more controlling and dependent on compliance or approval from self and others. An example of this would be, when a student who is not overly concerned with his grades works hard to get good grades because his parents told him they will buy him the new stereo he and his friends are begging to have if he earns all "A's." Integration and Identification are more autonomous in nature. This occurs when the individual finds personal importance or value in the goal or outcome of the behavior. For example, when a student takes pride in getting good grades and knows that those good grades will

eventually get him into the university he wants to attend. It is critical for educators to employ extrinsic motivation that is internally integrated. Deci and Chandler (1986) discuss methods for educators to meet basic psychological needs for students to feel competent, be involved, understand rationale for activities, and gain acknowledgement for their feelings. Creating these conditions facilitates internally integrated and intrinsic motivation for students with and without disabilities. This ability to internalize and regulate motivation leads to a greater level of self-determination (Ryan & Deci, 2000b), performance, and development (Deci, Vallerand, Pelletier, & Ryan, 1991).

Self-determination as an educational outcome. Special education has primarily considered self-determination to be an educational outcome. As an educational outcome self-determination for individuals with disabilities develops from the micro level of the individual, but has a macro level goal of the individual's functioning within a self-determined society. In the 1980's this was inherent in the concept of the *Adaptability Instructional Model*, which proposed instructional strategies that would promote an increase in adaptive responses by individuals with disabilities (Mithaug, Martin, & Agran, 1987). Adaptability instruction included the components of decision-making, independent performance, self-evaluation, and adjustment. Making adjustments was the key to adaptive responses. Mithaug et al.'s (1987) goal of adaptive ability was to support students with disabilities in making adjustments in post-school settings in order to increase their long-term employability.

Later in the 1980's and the early 1990's the U.S. Department of Education, Office of Special Education and Rehabilitation Services (OSERS) began an initiative to promote self-determination for individuals with disabilities at a federal level (Ward & Kohler,

1996; Ward 1999). Through this initiative, the Secondary Education and Transitional Services for Youth with Disabilities Program within OSERS granted funding to 26 model demonstration projects to identify self-determination skills and develop interventions for teaching those skills (Ward & Kohler, 1996; Field, Hoffman, & Posch, 1997; Ward, 1999; Wehmeyer, 1999; Pennell, 2001). In addition to the OSERS initiative, projects funded by the Robert Wood Johnson Foundation had a major impact on the development of self-determination especially for adults with developmental disabilities. Funding for these projects was designed to help states and organizations change service systems in ways that supported self-determination for individuals with disabilities (Pennell, 2001). The outcomes of these and other projects built the foundations for the conceptual understanding of self-determination as it relates to individuals with disabilities, as well as, the initial intervention strategies for promoting self-determination skills and positive outcomes.

To better understand the conceptualization of self-determination theory in the field of special education, it is necessary to define the terms theory and model. The Merriam Webster Collegiate Dictionary describes theory as "analysis of a set of facts in their relation to one another . . . abstract thought or speculation" (Mish, 2001, p. 1219). For the purpose of this discussion the term model is defined as "structural design . . . a description or analogy used to help visualize something . . . that can not be directly observed" (Mish, 2001, p. 745). These definitions are used to support the evolution of self-determination models and theory.

Beginning with the *Adaptability Instructional Model*, researchers in the field of special education built upon the self-determination foundation from other fields including

business, sports, and psychology. Theories of success, self-efficacy, self-regulation, goal attainment and self-control are just a few of the areas that were expanded to formulate concepts of self-determination applicable to the education of individuals with disabilities (Mithaug, Wehmeyer, Agran, Martin, & Palmer, 1998; Field & Hoffman, 1994; Wehmeyer, 2001). These concepts developed into four major models or definitions of self-determination. Research of these models over the last decade has come together to formulate the Self-Determined Learning Theory (Mithaug, Mithaug, Agran, Martin, & Wehmeyer, 2003). The four major theoretical perspectives of self-determination applied in special education are: (1) a *Model for Self-Determination* (Field & Hoffman, 1994), (2) *ChoiceMaker's* seven self-determination constructs (Martin & Huber Marshall, 1995), (3) a *Functional Model of Self-Determination* (Wehmeyer, 1999), and (4) the *Self-Determined Learning Model of Instruction* (Mithaug et al., 1998). A description of each of these perspectives and their adjustment over time to corroborate the *Self-Determined Learning Theory* is discussed as evidence supporting increased educational outcomes.

Outside of the *Adaptability Instructional Model*, Field and Hoffman's (1994) *Model for Self-determination* was one of the earliest models presented in the special education literature. Through their work they sought to develop a model for instructional strategies that would support IDEA's requirement of transition activities based on student's preferences and interest as well as comply with the Rehabilitation Act Amendments of 1992 (P.L. 102-569). In these amendments congress stated

> disability is a natural part of the human experience and in no way diminishes the right of individuals to (A) live independently; (B) enjoy self-determination;

(C) make choices; (D) contribute to society; (E) pursue meaningful careers; and (F) enjoy full inclusion and integration in the economic, political, social, cultural, and educational mainstream of American society. (p. 3-4)

Field and Hoffman conducted a review of literature, interviewed individuals with disabilities, and observed students with and without disabilities to develop their initial model. Their final model emerged from panel reviews and revisions of the initial model.

The *Model for Self Determination* is built on the definition that self-determination "is the ability to define and achieve goals based on a foundation of knowing and valuing oneself" (Field & Hoffman, 1994, p. 164). The model, depicted in Figure 1, includes five major components: (1) know yourself, (2) value yourself, (3) plan, (4) act, and (5) experience outcomes and learn (Field & Hoffman, 1994). The ability to know and value yourself work together to form a foundation that supports the action an individual takes. Beginning with this foundation the model depicts a process of planning, acting, experiencing, and learning. The results of experience and learning cycles back to influence the individual's self-awareness and self-value. Through this model Field and Hoffman make the presumption if an individual performs self-determined behaviors, he or she is self-determined. Field and Hoffman created the *Model for Self-Determination* to be used as a tool to teach students with disabilities how to achieve and be self-determined in variety of settings with varying degrees of support.

Martin and Huber Marshall (1995) identified the *ChoiceMaker* seven self-determination constructs essential for students with disabilities to direct their lives. With the foundation of the *Adaptability Instructional Model*, Martin and Huber Marshall interviewed individuals with disabilities and their family members, conducted extensive

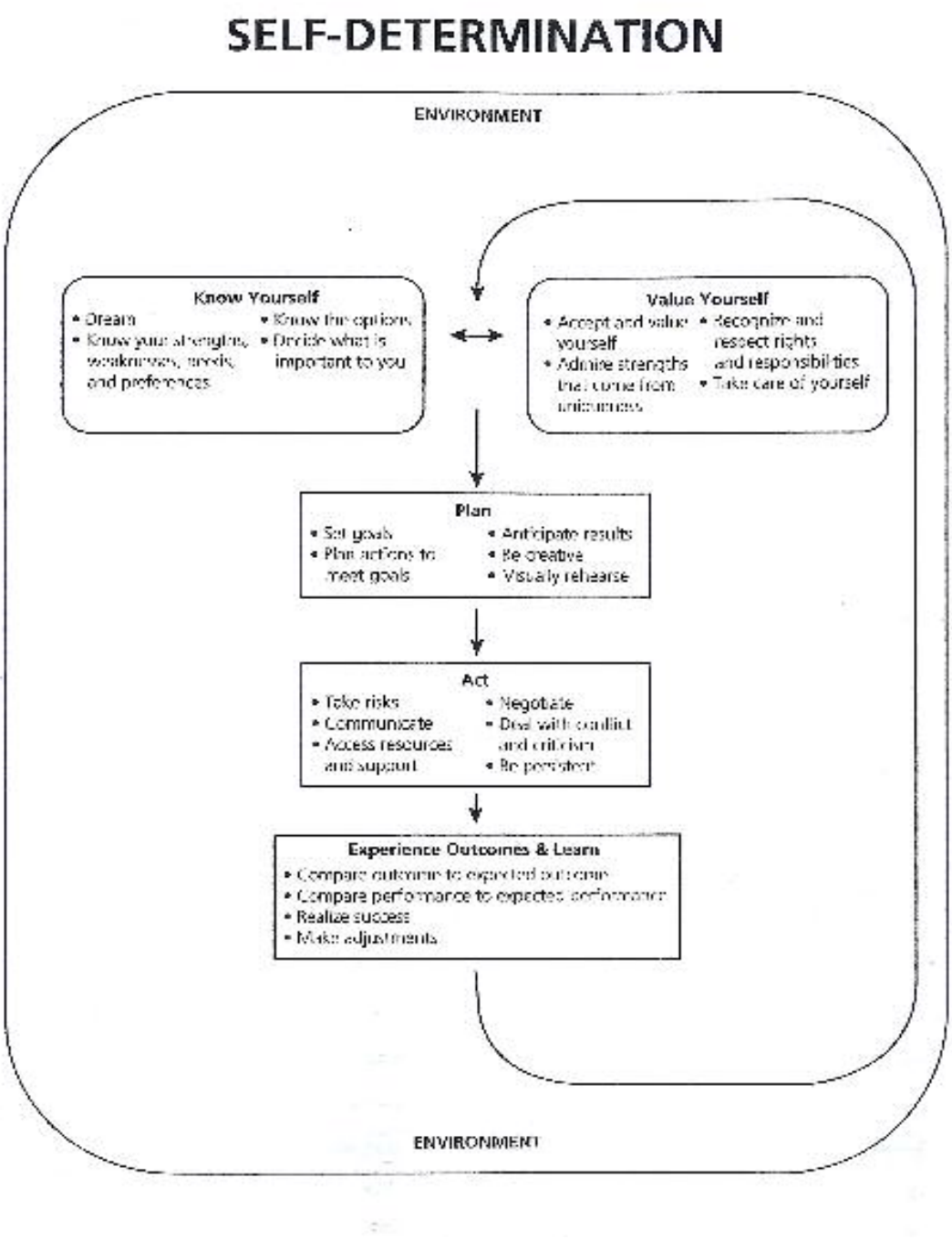

Figure 1. Model for self-determination. From "Development of a Model for Self-Determination," by S. Field and A. Hoffman, 1994, Career Development for Exceptional Individuals, 17(2), p.165. Copyright 1994 by the Council for Exceptional Children Division on Career Development and Transition. Reprinted with permission.

reviews of literature in a variety of fields, and surveyed professionals in the special education field to identify and validate 37 concepts of self-determination. Concepts were grouped into seven constructs of self-determination: self-awareness, self-advocacy, self-efficacy, decision-making, independent performance, self-evaluation, and adjustment. As a result of these constructs, Martin and Huber Marshall consider self-determined individuals as those who:

> know how to choose –they know what they want and how to get it. From an awareness of personal needs, self-determined individuals choose goals, then doggedly pursue them. This involves asserting an individual's presence, making needs known, evaluating progress toward meeting goals, adjusting performance and creating unique approaches to solving problems. (p. 147)

Martin and Huber Marshall proposed that acquisition of these self-determination skills, through specific instructional strategies, would increase the post-school vocational and educational outcomes of students, and support students and educators in meeting IDEA requirements of planning for these outcomes.

Wehmeyer (2001) proposed that individuals who act as causal agents in their lives are able to shape their future and effect their quality of life. Self-determination in special education is often described by the responses or behaviors that individuals display due to instructional implications in the field. Wehmeyer's (1999) *Functional Model of Self-Determination* (See Figure 2) emphasizes the agency of the individual and the function for which the behavior occurs. Wehmeyer (1996) argued that self-determination can not only occur in the presence of specific behaviors, but also in their absence. He discussed how individuals who make good or acceptable choices tend to be considered self-

determined, yet he argued those who make choices that society may not agree with are still self-determined, if they acted of their own volition. Accordingly, Wehmeyer (2001) suggested that self-determined responses develop from self-realization, require autonomous and psychologically empowered action, and are self-regulated. As a result of this process, Wehmeyer (1996) defined self-determination as "acting as the primary causal agent in one's life free from undue external influence of interference" (p.24). The ability to be one's own causal agent implies that actions taken are intended to result in a personally desired outcome (Wehmeyer, 1996).

Mithaug, Wehmeyer, Agran, Martin, and Palmer's (1998) *Self Determined Learning Model of Instruction* proposed that individuals with disabilities need to be able to alter situations in life based on "self-selected" pursuit to improve their "prospects for living the good life" (p. 302). The original *Adaptability Instructional Model* (Mithaug et al., 1987) was the foundation for the *Self Determined Learning Model of Instruction* (Mithaug et al., 1998; Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000). Mithaug et al. (1998) discovered there was more to successful functioning than making adjustments in ones present situation. It was not acceptable that individuals with disabilities should simply adjust in situations that were less favorable than those of their non-disabled peers. Mithaug et al. determined along with adjustment, people should know how to regulate their problem solving in order to alter circumstances to be more optimal for the pursuit of their goals. They described this as "acting on ones circumstances rather than simply reacting to one's circumstances" (Mithaug et al., 1998, p. 302). This acting on ones circumstances results in the individual becoming the causal agent in life (Wehmeyer et al., 2000).

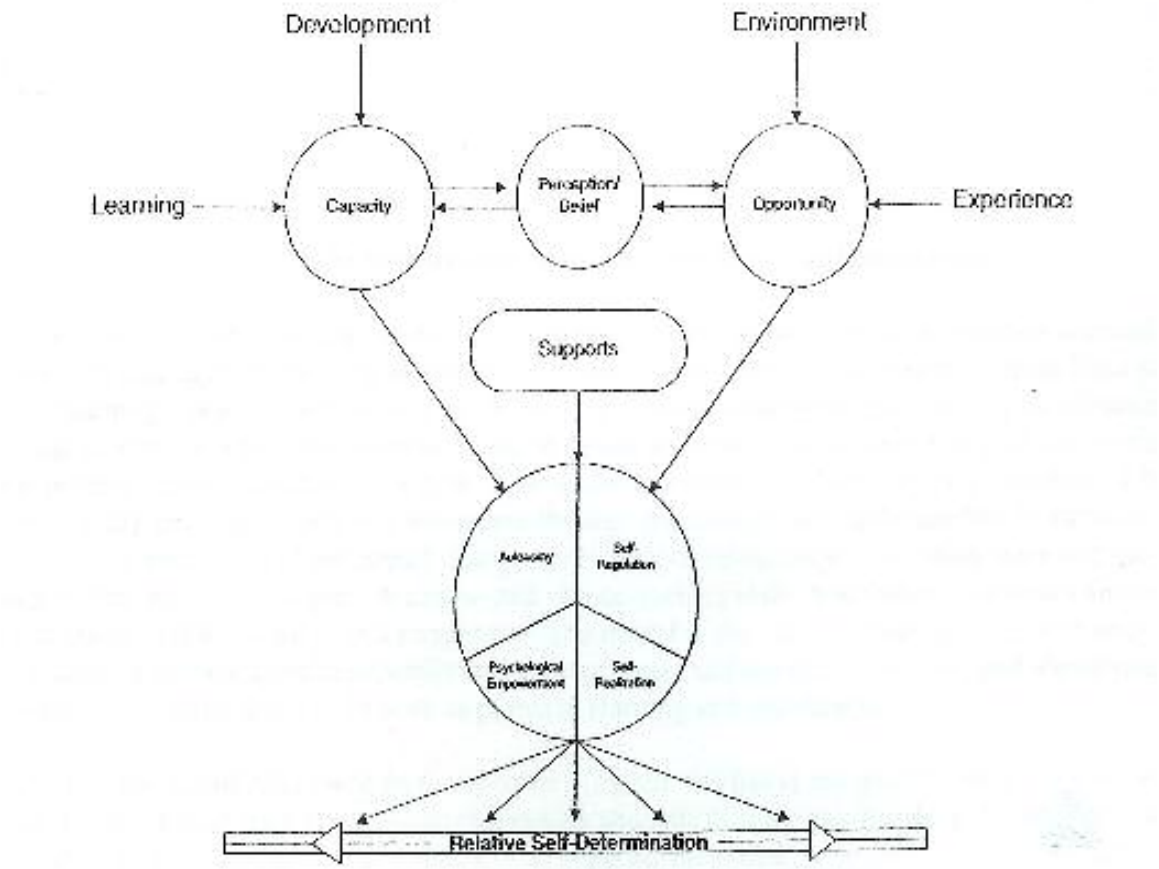

Figure 2. Functional model of self-determination. From "Self-Determination and Mental Retardation," by M. L. Wehmeyer, 2001, International Review of Research in Mental Retardation, 24, p.32. Copyright 2001 by Elsevier. Reprinted with permission.

The models presented here represent early theories in the field of special education. These models were formulated from research provided by theories in other fields and were studied to determine applicability for individuals with disabilities. All of the models presented were used to develop definitions and instructional strategies for self-determination. Many of the developers of these models have collaboratively summarized a definition of self-determination. Field, Martin, Miller, Ward, and Wehmeyer (1998) stated:

> self-determination is a combination of skills, knowledge, and beliefs that enable a person to engage in goal directed, self-regulated, autonomous behavior. An understanding of one's strengths and limitations together with a belief in oneself as capable and effective are essential to self-determination. (p.2)

Through professional collaboration such as this definition and independent research on their models many of these creators have come together in support of the*Self -Determined Learning Theory*.

Mithaug et al.'s (2003) *Self-Determined Learning Theory* proposes "learning is adjustment" (p. ix) based on the idea that "optimal opportunities and optimal adjustments maximize learning" (p. x). The *Self Determined Learning Theory* (Mithaug et al., 2003) begins when an individual's experiences and beliefs combine to create an optimal opportunity effect for engagement. This optimal opportunity effect increases the likelihood of the individual's engagement and expectation to gain from the opportunity. Expectations of gain effect the choices one makes and these choices influence actions taken. Results from the actions contribute to an individual's knowledge of expectations for gain from an opportunity. This knowledge creates the optimal adjustment effect, which impacts the individual's experiences and beliefs. When individuals are able to combine favorable opportunities for engagement with the ability to effectively adjust behavior, learning is enhanced (Mithaug et al., 2003).

Research on Self-Determination and Educational Outcomes

Research in the area of self-determination has primarily focused of expanding the effectiveness of instructional strategies and methods to teach self-determination (Eisenman, 2001). Emerging research has begun to determine the effects of self-

determination on the educational outcomes of students with or without disabilities. Within the framework of the definitions of outcomes explored in this paper, I will present the available research relating to the effects of self-determination on meeting state academic standards, quality of life indicators, and educational and vocational.

Employment Outcomes

Gerber, Ginsberg, and Reiff (1992) interviewed 71 adults with learning disabilities to identify the differences between those who were successful and those who where unsuccessful. Success for this research was based on the individual's attainment of leadership positions and job maintenance, stability, and advancement. Gerber et al. (1992) found that successful individuals had specific internal foundations and external adaptive behaviors. Successful individuals in this study had a desire to succeed, were goal oriented, and were able to confront and overcome various challenges. In addition, they were persistent, sought environments that support their success, applied various performance strategies, and built support systems for themselves. All of these constitute specific self-determination characteristics described in the preceding self-determination models and theory.

Quality of Life Outcomes

One year after graduation. Wehmeyer and Schwartz (1997) took the first direct look at the educational outcomes of students with disabilities. They identified 80 students with cognitive disabilities graduating from high school to participate in a follow-up study. Participant's level of self-determination and locus of control were measured at the time of graduation. One year later, a follow-up survey of questions regarding employment and post-school education status, living arrangement, and community

integration was mailed to each participant's last known address. Due to the possibility that students may not have lived at the address any longer or have been able to complete the survey independently, the survey was to be primarily completed by a parent or family member.

Wehmeyer and Schwartz found significant differences between low and high self-determination individuals. High self-determined individuals were more likely to maintain a checking ($\chi^2 = 4.75$, $p = .03$) or savings account ($\chi^2 = 5.34$, $p = .02$) and be employed, $F(1, 10) = 10.22$, $p = .01$. The majority of the participants still lived with their parents one year after graduation, however, a larger percentage of individuals in the high self-determination group expressed they would like to live elsewhere. No significant differences were present between the high and low groups with regards to post-secondary education ($\chi^2 = 6.75$, $p = .009$). These findings suggest a supportive relationship between self-determination and quality of life and provide "evidence that self-determination is an important educational outcome if youth with disabilities are to achieve positive adult outcomes" (Wehmeyer & Schwartz, 1997 p. 250).

Three years after graduation. Wehmeyer and Palmer (2003) conducted a study similar to the Wehmeyer and Schwartz (1997) research. In this study, Wehmeyer and Palmer collected outcome information from 77 students with a learning disability or mental retardation and varying levels of self-determination one year after graduation and three years after graduation. In addition, they included 17 of the individuals from the Wehmeyer and Schwartz study in the three year follow-up. They analyzed the results of this study to control for varying cognitive abilities of participants. Results indicated no

significant difference between the high and low self-determination groups with regards to IQ, $F(1, 46) = 1.04$, *ns*.

Year one results replicated the findings by Wehmeyer and Schwartz and supported their identification of a relationship between self-determination and positive adult outcomes. Three years after graduation individuals with high levels of self-determination were more likely to live independently, $F(1, 86) = 6.29$, $p = .014$, have greater financial independence, be employed, $F(1, 92) = 7.29$, $p = .008$, received training $F(1, 89) = 8.57$, $p = .004$, and have obtained better job benefits. This evidence formed a trend where individuals with higher levels of self-determination had better educational outcomes (Wehmeyer & Palmer, 2003).

Living in group homes. Wehmeyer and Schwartz (1998) conducted a study to determine the relationship between self-determination and quality of life for 50 individuals with mental retardation. To control for environmental influence on quality of life, the study participants all lived in similar group home situations. Quality of life was measured through interviews of participant's satisfaction, productivity, independence, and socialization. Results indicated no significant difference between participant's cognitive ability and quality of life, $F = .0211$, $p = .8851$. Significant differences were found with regards to self-determination and quality of life, $F = 4.7129$, $p = .0350$. Individuals with high self determination had a more positive quality of life.

Conclusions

Seymour Sarason (1990) stated "the goal of education is to produce responsible, self-sufficient citizens who possess the self-esteem, initiative, skills and wisdom to continue individual growth and pursue knowledge" (p. 163). Within this statement lies the answer

to the relationship between self-determination and educational outcomes. The characteristics that Sarason delineates for the outcome of education encompass self-determination skills. Self-determination model and theory development champion these skills as the basis for learning and achievement of outcomes (Field & Hoffman, 1994; Martin & Huber Marshall, 1995; Mithaug et al., 1998; Wehmeyer, 1999).

Halloran (1993) believes that "self-determination is the ultimate goal of education" (p.214). This is particularly true for students with disabilities who tend to have poorer outcomes than individuals without disabilities (Wagner & Blackorby, 1996; Wehmeyer, Agran, Hughes, 1998). Studies evaluating the relationship between self-determination and increased vocational and independent living outcomes, provide correlational evidence for this relationship (Gerber et al., 1992; Wehmeyer & Palmer, 2003; Wehmeyer & Schwartz, 1997; Wehmeyer & Schwartz, 1998). When individuals have the ability to be self-aware, believe in their abilities, have opportunities to direct their lives, and adjust and adapt based on their experiences, they will have an increased likelihood of achieving the outcomes they desire.

Self-determination models and instructional strategies for secondary age students address the majority of these needs. However, a large number of students with disabilities are not given the opportunity to learn these skills and strategies prior to entering the independent life in the academic society of a university (Agran, Snow, & Swaner, 1999; Wehmeyer, Agran, & Hughes, 2000). Supporting students in this endeavor means providing them with the opportunities to learn and acquire self-determination skills. Existing self-determination strategies have not been specifically designed to support

students in the university setting. Strategies and opportunities must be verified for effectiveness and followed-up to determine their impact on student outcomes.

CHAPTER TWO

Self-Determination Strategies and Implementation

Self-determination theory in the field of special education began through the development of four major models: a *Model for Self-Determination* (Field & Hoffman, 1994), *ChoiceMaker*'s seven self-determination constructs (Martin & Huber Marshall, 1995), a *Functional Model of Self-Determination* (Wehmeyer, 1999), and the *Self-Determined Learning Model of Instruction* (Mithaug, Wehmeyer, Agran, Martin, & Palmer, 1998). The founders of these models used them to create instructional strategies designed to facilitate self-determination and promote positive outcomes for individuals with disabilities. Each of these strategies have been field tested or researched to determine effectiveness in increasing students' self-determination skills. The implications of these findings provide a foundation for the *Self-Determined Learning Theory* (Mithaug, Mithaug, Agran, Martin, & Wehmeyer, 2003). In addition, researchers have begun to study factors effecting the implementation of self-determination strategies. Through a discussion of instructional strategies, their effectiveness, and issues regarding implementation, professionals can identify successful tools for teaching self-determination and potential areas for further development.

Self Determination Instructional Strategies

Steps to Self-Determination

The *Steps to Self-Determination (STEPS)* lesson package developed from the *Model for Self-Determination* (Field & Hoffman, 1994) addresses "both internal, affective factors and behavioral components that contribute to self-determination" (Field, Hoffman, & Posch, 1997, p.286). This model consists of five steps: know yourself, value

yourself, plan, act, and experience outcomes and learn (Field & Hoffman, 1994; Hoffman & Field, 1995). The first two steps, know yourself and value yourself, focus on the self-determination skills related to internal factors. The next two, plan and act, build from the internal knowledge of oneself and focus on how to act with this knowledge. The final step, experience outcomes and learn, addresses how the individual evaluates performance on specific actions in a self-determined manner. Within the curriculum students work through topics such as self-awareness and self-acceptance, rights and responsibilities, accessing support, goal setting and attainment, and breaking barriers. Students participate in advocacy strategies that include assertive communication, negotiation, and conflict resolution.

Hoffman and Field (1995) field tested the *STEPS* model and curriculum with 77 high school students ranging in age from 15 to 25 years. Participants in the study qualified as having a variety of disabilities including mental retardation, hearing impairments, learning disabilities, and emotional disturbance. Field and Hoffman developed six assessment instruments to measure the self-determination domains in the *STEPS* model. They used two of the instruments, the *Self Determination Knowledge Scale (SDKS)* and the *Self-Determination Observation Checklist (SDOC)* to measure curriculum effectiveness. Students completed both measures in the format of pre and posttests. The researchers compared assessment results between a treatment group and control group using a *t* test. Results of the analysis indicated a significant increase in the treatment group student responses on the *SDKS* ($p = .002$) when compared to the control group. The analysis also indicated a significant increase in the treatment group student

self-determination behaviors on the *SDOC* (p = .000) when compared to the control group.

Bruno (2000) applied the *STEPS* curriculum to determine its effectiveness at decreasing depression indicators and increasing self-determination in sixth grade students between 14 and 22 years of age. Participants included 139 students who took part in the *STEPS* intervention and a control group of 277 students. A total of 225 of these participants reported having a disability. Students in the treatment group participated in the *STEPS* intervention for a period of 16 weeks. Bruno evaluated student pre and post depression and self-determination scores using a multiple analysis of covariance (ANCOVA). No statistically significant differences were found between the treatment group and the control group in depression features or self-determination post scores, $F(6, 33) = .97$, $p = .229$. Students in the treatment group originally found to be at risk for depression indicated a near significant decrease in depression features following implementation of the *STEPS* curriculum, $F(1, 38) = 1.90$, $p = .089$. Bruno found a near significant increase in student global self-determination scores, $F(1, 38) = 0.09$, $p = .084$. Findings from both of these studies favor the *STEPS* to self-determination curriculum's ability to have positive influence on students with disabilities.

ChoiceMaker Self-Determination Curriculum

Martin and Huber Marshall (Martin & Huber Marshall, 1995) developed the *ChoiceMaker* self-determination curriculum with the purpose of facilitating the acquisition of seven self-determination constructs: self-awareness, self-advocacy, self-efficacy, decision making, independent performance, self-evaluation, and adjustment. The *ChoiceMaker* curriculum centers around three major components or conditions in

which the seven constructs can be applied: choosing goals, expressing goals, and take action. These instructional strategies can be integrated into existing secondary coursework and objectives (Martin & Huber Marshall).

Choosing Goals is divided into the three lesson packages of *Choosing Personal Goals* (Huber Marshall, Martin, Jerman, Hughes, & Maxson, 1997), *Choosing Educational Goals* (Martin, Hughes, Huber Marshall, Jerman, & Maxson, 1997), and *Choosing Employment Goals* (Huber Marshall, Martin, Maxson, & Jerman, 1997). Choosing goals is the process where students "learn the skills and personal information needed to articulate their interests, skills, limits, and goals across one or more self-selected transition areas" (Martin & Huber Marshall, 1995, p. 152). Expressing goals is designed to provide students with the leadership ability they need in order to express to others the skills and personal information they learned through the choosing goals process. Students are taught expressing goals the process of through learning to be actively involved in their Individualized Education Plan (IEP) meetings, which Martin and Huber Marshall called the *Self Directed IEP* (Martin, Huber Marshall, Maxson, & Jerman, 1996). The last component in the *ChoiceMaker* curriculum is the *Take Action* (Huber Marshall, Martin, Maxson, et al., 1999) goal attainment strategy. *Take Action* is a step-by-step process for planning, acting on, evaluating, and making adjustments to reach goals. Each of the *ChoiceMaker* lesson packages has been empirically evaluated to determine effectiveness (Allen, Smith, Test, Flowers, & Wood, 2001).

Choosing goals. Cross, Cooke, Wood, and Test (1999) evaluated the effectiveness of the choosing goals component through a comparison of five participants who received the *Choosing Employment Goals* instruction and five participants who received

instruction using the *McGill Action Planning System (MAPS)* (Vandercook, York, & Forest, 1989). Participants in the study were high school students with mental retardation ranging in age from 14 to 20 years. Measures of program effectiveness were gathered from pre-post assessments using the *Arc's Self-Determination Scale* (student rating) and the *ChoiceMaker Self- Determination Assessment* (teacher rating), as well as, student interviews and a tally of student preferences presented during the Individualized Education Program (IEP) meeting. Researchers analyzed results of the *Arc's Self-Determination Scale* and the *ChoiceMaker Self-Determination Assessment* using a series of split-plot factor analyses and repeated measures analyses. In addition, they used a multiple baseline design across goal areas to monitor changes in student responses to interview questions. Results of the study indicated that both instructional interventions produced a statistically significant increase in overall self-determination scores. The *Arc's Self-Determination Scale* indicated significant pre/posttest overall self-determination scores ($F(1, 8) = 18.87$, $p < .01$) and autonomy scores ($F(1, 8) = 15.37$, $p < .01$) for those who participated in the *Choosing Employment Goals* instruction. The *ChoiceMaker Self-Determination Assessment* indicated significant pre/posttest choosing goals- student skills ($F(1, 8) = 7.09$, $p < .01$), choosing goals – opportunity ($F(1, 8) = 16.15$, $p < .01$), expressing goals – opportunity ($F(1, 8) = 7.00$, $p < .01$), taking action – student skills ($F(1, 8) = 12.91$, $p < .01$), and taking action - opportunity ($F(1, 8) = 6.15$, $p < .01$) for those who participated in the *MAPS* training. No significant differences were found between the two instructional strategies. However, the *Choosing Goals* group produced large effect sizes ($d > .50$) in their pre-post scores that were greater than the *MAPS* group on four out of the five *Arc Self-Determination Scale* and the *ChoiceMaker*

Assessment choosing goals - opportunity. *MAPS* produce large effect sizes ($d > .50$) greater than *Choosing Employment Goals* on the *ChoiceMaker Assessment* expressing goals – opportunity, and taking action – opportunity. Neither strategy had a significant impact on student use of self-determination skills in their interview or IEP meeting.

Expressing goals. Snyder and Shapiro (1997), Sweeney (1997) and more recently by Allen, Smith, Test, Flowers, and Wood (2001) evaluated the effectiveness of the *Self Directed IEP* strategy. The participants in these studies were at least 14 years of age. Results of all three studies indicated that the *Self Directed IEP* instructional strategy increased student involvement in their IEP meetings. Snyder and Shapiro's (1997) three participants attended a private school for individuals with serious emotional disturbance. This study used a multiple baseline design and conducted pre-post simulated IEP meetings. Two of the three participants showed substantial increases of assessment level in their ability to provide an introduction at the IEP meeting, review past goals, and discuss future goals following the introduction of the *Self Directed IEP* curriculum.

Allen et al.'s (2001) four students qualified as having moderate mental retardation. Similar to Snyder and Shapiro, this study used a multiple baseline design and conducted pre-post simulated IEP meetings. However, Allen et al. continued the evaluation procedure into actual IEP meetings. All four of Allen et al.'s participants increased level of reporting options, reporting skills, reporting, interests, and leading the meeting during the mock IEP meetings following the implementation of the *Self-Directed IEP* curriculum. In addition, analysis of pre-post scores using the Wilcoxon matched-pairs signed-ranks test indicated significant increases between pre-post skills of leading the meeting ($z = 1.89$, $p < .05$), reporting interests ($z = 1.84$, $p < .05$), reporting skills

($z = 1.89$, $p < .05$), and reporting options ($z = 1.89$, $p < .05$) in student's actual IEP meeting in the Allen et al. study.

Sweeney's (1997) study involved four groups of students. Two groups of students had mild disabilities; one received *Self Directed IEP* instruction and the other served as a control comparison group. The remaining two groups had moderate disabilities and they too were divided into an intervention and comparison group. Sweeney found that students who received the *Self Directed IEP* instruction were more likely to attend IEP meetings and knew more about their IEP goals and objectives. Both the training and comparison groups expressed interest in post-school goals. However, goals expressed by the training group were more closely related to what was written in their IEP.

Take action. German, Martin, Marshall, and Sale (2000) and Walden (2002) evaluated the final strand of the *ChoiceMaker* curriculum. The German et al. (2000) study taught the *Take Action* goal attainment skills to six high school students with mild to moderate mental retardation. The study used a multiple baseline design to record the number of daily goals achieved by students prior to, during, and after receiving the *Take Action* intervention. Results suggested that the students increased the number of daily goals attained after receiving instruction from the *Take Action* process. Students were able to maintain this performance when the *Take Action* instruction and forms were withdrawn. Walden (2002) implemented *Take Action* instruction to determine if it would effectively teach five college students with learning disabilities goal attainment. In addition, Walden sought to determine if the *Take Action* strategies would generalize to a new behavior, over time, and settings. Three out of the five participants met expectations for successful completion of the *Take Action* instructional program. Participants

generalized the strategy to a new behavior. Generalization of the strategy did not, however, maintain over time, and one student's level dropped below that of pre-intervention. The results of the research of each of the components of the *ChoiceMaker* program provides evidence for its use in increasing student self-determination level and opportunities to use those skills through participation in their IEP meetings.

Whose Future is it Anyway?

Wehmeyer and Lawrence (1995) developed the *Whose Future is it Anyway?* instructional program to involve students in their transition planning. *Whose Future is it Anyway?* encompassed the components of causal agency Wehmeyer (1996) addressed in his *Functional Model of Self-Determination*. The original idea of *Whose Future is it Anyway?* grew out of the need to increase self-determination of young women with disabilities who traditionally had poorer employment outcomes than men with disabilities (Wehmeyer, 1998). However, the program is appropriate for secondary students with disabilities regardless of gender.

Whose Future is it Anyway? consists of six sections: (1) getting to know you, (2) making decisions, (3) how to get what you need, section 101, (4) goals, objectives and the future, (5) communication, and (6) thank you, honorable chairperson (Wehmeyer, 1998; Wehmeyer & Lawrence, 1995). Students learn about the transition process, a discussion of disability and disability awareness, and acquire a strategy to apply when making decisions. Students also learn how to locate community resources, identify and evaluate goals, and to effectively communicate and participate in meetings.

Wehmeyer and Lawrence (1995) field tested the effectiveness of *Whose Future is it Anyway?* instructional program and determined its effect on students perceptions of

participation in the transition planning process. This involved 53 students from three high schools. Students ranged in age from 15 to 21 years old. They collected pre-post intervention scores for overall student self-determination, locus of control, self-efficacy and outcome expectation. Results of the repeated measures analysis of variance showed a significant difference between pre-post student self-efficacy, $F(1, 49) = 9.39$, $p = .001$, and outcome expectancy, $F(1, 49) = 4.68$, $p = .035$ after participation in the instructional program. However, when analyzed by gender, the significant difference was found only in the locus of control scale $F(1, 26) = 5.89$, $p = .02$, self-efficacy $F(1, 26) = 13.25$, $p = .001$, and outcome expectancy $F(1, 26) = 8.24$,$p = .008$ scores of female participants. A multiple regression analysis determined self-determination and locus of control accounted for 21% the variability in self-efficacy scores ($R^2 = .211$). These results show promise for promoting causal agency for women with disabilities.

Self-Determined Learning Model of Instruction

The *Self Determined Learning Model of Instruction* (Wehmeyer, Palmer, Agran, Mithaug, and Martin, 2000; Agran, Blanchard, & Wehmeyer, 2000) was created from earlier work on the *Adaptability Instructional Model* developed by Mithaug, Martin, and Agran (1987). This model had been designed to enable "teachers to teach students to become causal agents in their own lives" (Wehmeyer, Palmer, et al., 2000, p.439). It consists of three phases: set a goal, take action, and adjust a goal (Wehmeyer, Palmer, et al., 2000). Each phase is driven by a main question broken down into step-by-step questions that guide students to answer the overall question. The main questions posed by the three phases are: What is my goal?, What is my plan?, and What have I learned? In the *set a goal phase* students answer a series of four questions to help them choose a goal

for themselves. The *take action* phase consists of four questions that students answer to guide them to set a plan to act upon their goal. Finally, in the *adjust* phase students answer four more questions to help them evaluate what they have learned from the process of acting on their goal plan. While many self-determination curricula are designed for implementation with middle and high school students, the *Self determined Learning Model of Instruction* strategies have been modified for use with younger students (Wehmeyer & Palmer, 2000).

The effectiveness of the *Self Determined Learning Model of Instruction* has been evaluated through two separate field tests. Wehmeyer et al., 2000 conducted a field test with 40 secondary age students who each qualified as having either mental retardation, learning disabilities, or an emotional or behavioral disorder. *Goal Attainment Scaling Process (*GAS*)* indicated no significant differences, however, the majority of students participating in the instruction achieved or exceeded their educational goals. On average students in this study attained goals at a rate expected of the teacher with one third of the students exceeding these expectations. Paired sample t-tests found significant differences in pre-post self-determination on the *Arc's Self-Determination Scale* (p = .046).

The second field test involved 19 students identified as having one or more of the following disabilities: learning disabilities, mental retardation, cerebral palsy, blindness, orthopedic impairments, or diabetes (Agran et al., 2000). This study used similar measures to Wehmeyer, Palmer, et al. (2000) as well as a multiple baseline design to determine if there was an increase in students' self-determination skills following instruction. Agran et al. reported that 17 of the 19 students increased performance of targeted work, social, vocational, or academic behaviors following instruction. The

findings from both field studies provide evidence to support the use of the *Self-Determined Learning Model of Instruction* in enhancing the self-determination skills of students with disabilities.

Additional Strategies

The strategies discussed to this point have all been developed from theoretical models. It is important to mention that many other strategies for facilitating self-determination skills exist both in published and unpublished formats. Field, Martin, Miller, Ward, and Wehmeyer (1998) provide an extensive list of 35 published self-determination strategies. Algozzine, Browder, Karvonen, Test, and Wood (2001) through their self-determination synthesis project provide a description of 51 studies implementing self-determination interventions. While it is probable that theoretical study of self-determination has impacted the strategies presented by Field et al. and Algozzine et al., no direct relationship to self-determination models were indicated other than the four major instructional programs addressed in this paper.

Implementation of Self-Determination

The availability of instructional self-determination strategies is not enough to promote self-determination skills. Educators must value these skills for their students, and work to implement the strategies. Agran, Snow, and Swaner (1999) surveyed special educators to determine their perceptions of self-determination and its characteristics, and their use of self-determination instructional strategies. Educators indicated that self-determination skills were important for student confidence, assistance in school and preparing students for post-school life. However, they did not report self-determination being included as a goal on student IEPs or that students needed to discuss self-

determination. The majority of respondents had received in-service or university course instruction in teaching self-determination and most indicated self-determination was primarily related to choice making.

Wehmeyer, Agran, and Hughes (2000) analyzed data from 1,219 surveys to determine teacher's opinions and implementation issues relating to self-determination. Primarily teachers of students with mild, moderate, and severe mental retardation, learning disabilities and multiple disabilities completed the surveys. Respondents represented all 50 states and two U.S. territories. Results from the survey indicated that instruction in self-determination skills is important and these skills would support student success in post-school life. Only one third of the respondents reported including self-determination goals in the students IEP, but 35 to 70 percent indicated they taught some component of self-determination. Most frequent reasons for not teaching self-determination skills included: students would not benefit and teacher did not have sufficient training. Teachers identified journal articles, in-service, and graduate study as the sources for their knowledge of self-determination.

Eisenman and Chamberlin (2001) collaborated with seven schools to identify issues related to implementation of self-determination activities. Three of the schools in this study indicated they had self-determination instructional strategies already in place. The remaining four schools choose to initiate self-determination strategy instruction. Researchers gathered self-determination implementation information over a 9 month period from school documents, meetings, interviews, and observations and student assessments. Findings from the study support the value of self-determination instruction for all students, the need for it to begin early in educational career, and the need for it to

be integrated into existing curriculum. Results indicate the need to foster supportive environments including parent involvement, talk with students about their disability, and encourage self-directed learning. Participants noted that new instruments are necessary to evaluate self-determination skills and evaluation should be related to the IEP activities.

Conclusions and Research Questions

Educators and researchers agree that self-determination skills are important for positive educational outcomes. Self-determination theoretical models have influenced the development of effective strategies to promote the acquisition of these skills. These strategies have been shown to increase attainment of goals (Agran et al., 2000; German et al., 2000; Walden, 2002; Wehmeyer, Palmer et al., 2000), participation in educational program planning (Allen et al., 2001; Peterson et al., 2003; Snyder & Shapiro, 1997; Sweeney, 1997), and overall self-determination of students with a variety of disabilities (Cross et al., 1999; Hoffman & Field, 1995). While the studies presented in this paper indicate the positive effects of these instructional strategies, several issues require investigation: need for further research, need to support implementation, and need to develop lifelong strategies.

Further Research

Self-determination strategies have been designed to increase positive outcomes for students with disabilities (Field & Hoffman, 1994; Martin & Huber Marshall, 1995; Mithaug et al., 1998; Wehmeyer, 1999) who tend to have poorer outcomes than individuals without disabilities (Wagner & Blackorby, 1996; Wehmeyer, Agran, Hughes, 1998). However, only two of the studies presented addressed the issue of student generalization of the strategy (Allen et al., 2001; Walden, 2002), which is critical for

influence on student outcomes. Follow-up studies of students who have acquired self-determination skills from a specific instructional strategy are necessary to determine long-term effectiveness. In addition, many of the studies presented were field tests of the instructional strategies, additional research is necessary to support their findings.

Implementation Support

Educators support the instruction of self-determination skills, but barriers to implementation exist. Teachers need a better understanding of the concept of self-determination and effective instructional strategies. Since many teachers have learned about self-determination through in-services and university courses, perhaps these programs need to place additional emphasis on how to teach these skills. Educators must create a supportive environment and the opportunities for students to acquire self-determination skills. Instructional strategies are only effective if they are used by educators.

Lifelong Strategies

All of the studies presented were completed with students at least 14 years or older. Self-determination is a life long process (Wehmeyer, Martin, & Sands, 1997). It is unrealistic of educators to expect students to acquire and generalize self-determination skills by graduation time when instruction begins at age 14. Instruction needs to begin early in a student's educational career. While young children may not be developmentally ready to be self-determined, they are capable of exhibit initial self-determination behaviors (Doll, Sands, Wehmeyer, & Palmer, 1996; Wehmeyer & Palmer, 2000).

On the other end of the age spectrum, model based strategies do not address the self-determination needs of students beyond high school. Graduates who continue their

educational career may require initial, transition, or generalization support to apply self-determination skills in a postsecondary setting. I am attempting to address these issues by implementing and evaluating the effectiveness of an instructional program aimed at increasing the self-determination and self-efficacy of college students with learning disabilities. This project will attempt to answer the following five questions:

1. To determine if implementation of a support network and direct services for developing critical self-determination skills will increase the *level of self-determination* of university students with a learning disability or attention deficit disorder.
2. To determine if implementation of a support network and direct services for developing critical self-determination skills will increase the *level of self-efficacy regarding perceptions of college performance* of university students with a learning disability or attention deficit disorder.
3. To determine if implementation of a support network and direct services for developing critical self-determination skills will increase the *level of persistence regarding perceptions of college performance* of university students with a learning disability or attention deficit disorder.
4. To determine if implementation of a support network and direct services for developing critical self-determination skills will increase the *level of self-efficacy regarding perceptions of personal disability* of university students with a learning disability or attention deficit disorder.
5. To determine if implementation of a support network and direct services for developing critical self-determination skills will *increase the study behavior*

percentile scores of university students with a learning disability or attention deficit disorder.

To answer these questions, college students with learning disabilities and attention deficit disorder participated in a Leadership Education for Advocacy Development (LEAD) project. A grant from the Maxine and Jack Zarrow Family Foundation, and the Anne and Henry Zarrow Foundation of Tulsa, Oklahoma funded LEAD project activities and student materials. The LEAD project provided specific self-determination instruction and made available a support network to increase student level of self-determination, level of self-efficacy regarding perceptions of college performance, level of persistence regarding perceptions of college performance, level of self-efficacy regarding perceptions of personal disability, and study behavior percentile scores. Results of the research provide a guide and implications for developing future university disability support programs and increasing the retention and completion of college students with learning disabilities.

CHAPTER THREE

Methods and Procedures

Design

The study employed a parallel mixed method design to provide an in-depth description of project outcomes, which enabled me to simultaneously collect quantitative and qualitative data. The need for qualitative query emerged during the course of the project due to sample size and minimal student involvement. The quantitative method involved a repeated measures pre-during-post test design. The multiple measures of the pre-during-post design attempted to control for threats to the study's internal validity due to the small sample size. The need to include qualitative case study procedures to enhance the study's validity emerged through the course of the project. Case study findings were collected through student profiles and exit interview. Student profiles consisted of information from my notes, student weekly email responses, and Student Background Surveys. The use of this mixed methods design provided a natural means to triangulate the collected data.

Prior to initiating the study, I completed and submitted a request for approval from the Institutional Review Board (IRB) at the University of Oklahoma. This approval helped assure the equitable and human treatment of the project participants. Appendix A-B contain IRB approval letters for the quantitative proposal (Appendix A), the addition of qualitative procedures (Appendix B), and the addition of participant incentives (Appendix C).

Participants

The participants consisted of a convenience sample of students attending the University of Oklahoma. Participants recruited for the study included students at least 18 years of age and who self-identified as having a learning disability and/or attention deficit disorder based upon previous involvement in special education programs or documentation of disability assessment reports. I used five different procedures to recruit students for this study. First, I sent a mass email depicted in Appendix D to new freshmen who had indicated on their incoming University College Survey as having a learning disability and expressed interest in receiving additional information regarding supports and services. Second, I sent the same email through the university Information Technology Department to all university freshmen and sophomores. Third, a mentor recruitment mass email (Appendix E) sent to all university juniors, seniors, and graduate students also identified students for the project. I replied to students who responded to the mentor email with status of mentor involvement and offering the opportunity to become a participant. Fourth, due to a low response rate participant recruitment email and the mentor recruitment email were sent by the university Disability Support Service Center to all students registered with their offices. Fifth, students who heard of the project through word-of-mouth were invited to participate.

Participant Email Response

Forty-nine students replied to the participant recruitment process. A review of responses indicated a need to clarify the participation conditions because several of the students did not have a learning disability or attention deficit disorder. I sent an email to all respondents to the recruitment email to provide clarification. Eleven responded back

indicating they did not have a disability. Seven students were interested in meeting to learn more information about the project.

Mentor Email Response

Thirty-one students replied to the mentor recruitment email. I sent a reply email clarifying the need for mentors to have a learning disability or attention deficit disorder and I offered them the opportunity to join as project participants. Many of the respondents did not have a disability, and one student expressed an interest in becoming a project participant. I told those interested in becoming mentors of the need to recruit project participants and let them know they would be notified when the project began. Low participant numbers did not allow for the involvement of all interested mentors.

Initial Consent

Eight students met to gain specifics of project participation. Seven students signed a quantitative consent letter (Appendix F) approved by the University of Oklahoma Institutional Review Board giving their permission to participate in the study. The eighth student chose not to participate, due to the time commitment. For unknown reasons one of the seven students left the project after the second session. Six students remained in the study and agreed to participate in the quantitative and qualitative study (Appendix G).Two of the six students completed at least 67% of the project activities, and did not finish the project, final measures, and exit interviews due to their personal time constraints and commitments. Four students fulfilled the requirements of the project, including making-up missed meetings.

Final Participants

Four project participants who completed the study consisted of three females and one male. Participants ranged in age from 18-20, and included one freshmen, one second year freshman transfer, one sophomore transfer, and one junior transfer. Two of the four participants identified meeting more than one disability category. Overall, three identified having learning disabilities, two identified attention deficit disorder, and two identified auditory processing difficulties. Additional demographic information of the six project participants is provided in the participant profiles presented in Chapter Four.

Participation Incentive

Participants in the project had the option to enroll in a two-credit hour Individual Study elective course. Two out of the four participants chose to enroll and were financially responsible for the tuition and fees associated with the two credit hour class. To have satisfactorily completed the project, participants must have attended or made-up at least 90% of the sessions, and completed all assessment protocols. I offered an additional financial incentive to students during the last quarter of the project to increase their likelihood of completing the project. Appendix H contains a copy of the consent letter to receive financial incentive. The incentive consisted of $50 to complete the exit interview and an additional $50 to complete the project lessons. Students needed to complete the project interview in order to receive any amount of financial compensation. At the time the incentive was offered, six students were participating. Five of the students accepted the $100 incentive offer to complete the exit interview and their remaining lessons. One student chose only to complete the exit interview for a $50 incentive. The four students who finished the project each received the one hundred dollars.

Participant Confidentiality

I kept confidential all information obtained about the participants during the course of this project. I assigned participants a number and they each chose a code name. All data were marked with the participant's code number and contained no personally identifying information.

Setting

The project took place on the campus of the University of Oklahoma. The university presented the most convenient and natural environment for students to learn and apply the self-determination intervention strategies. Both group and individual meetings took place in a university classroom and the at the Zarrow Center for Learning Enrichment. On two occasions, group meetings took place off campus at local restaurants during lunch to build social interaction and express appreciation for their participation.

Quantitative Pre-During-Post Procedures

Data Collection

I collected participant demographic data using the *Student Background Survey* (Martin, 2003). Results of the *Student Background Survey* (Appendix I) provided demographic information relating to the participant's disability, previous disability services, and attitudes towards accessing university disability support services included in student profiles. Participants completed the background survey in approximately five minutes.

Data to measure program effectiveness as it relates to changes in students' self-determination and self-efficacy were collected using three protocols: *AIR Self-determination Scale* (Wolman, Campeau, DuBois, Mithaug, & Stolarski, 1994), *Learning*

and Studying Scale (DeBacker & Greene, 2003), and *Confidence and Self-Advocacy Scale* (Peterson & Van Dycke, 2003). Project participants completed all three measures prior to participating, half way through, and immediately following the end of the project. I administered all protocols during group and individual meetings held in the university classroom or at the Zarrow Center for Learning Enrichment. It took participants approximately 20-30 minutes to complete the three data protocols. A second researcher verified 100% percent of the protocols maintaining a 100% interrater scoring reliability. In addition, students completed a measure of study behaviors during the course of the intervention period. Participants completed the computerized Windows version of the *Study Behavior Inventory* (Mueller, & Gibson, 1982) at the University of Oklahoma Assessment Center outside of the scheduled project meeting times. Completion of the inventory took approximately 10 minutes. Specific details of each quantitative measure are discussed below.

AIR Self-Determination Scale. The *AIR Self-Determination Scale* (Wolman, Campeau, DuBois, Mithaug, & Stolarski, 1994) is a 24-item tool used to measure students' *capacity* and *opportunities* related to three components of self-determination: thinking, doing, and adjusting. The scale measures self-determination capacity and opportunity in both the school and home domains. Responses are reported on a five-point Likert scale of Never, Almost Never, Sometimes, Almost Always, and Always.

Wolman et al. (1994) reported reliability and validity tests of the *AIR Self-Determination Scale* (Appendix J) conducted with over 450 students with and without disabilities ranging in age from 6 to 25 years. Reliability tests included an alternative-item correlation for item consistency, a split-half test for internal consistency, and a test-

retest measure of stability of results. Strong correlations ranging from .91 to .98 were indicated by the alternative-item test. The internal consistency of odd numbered items compared to even numbered items resulted in a strong spilt-half correlation of .95. Test-retest reliability, performed before and after a three-month time period, resulted in a moderate correlation of .74.

Learning and Studying Scale. I used a theoretically based *Learning and Studying Scale* adapted from the *Studying and Learning Scale* (Greene, Dillon, & Crynes, 2003) to measure participants' level self-efficacyregarding perceptions of college performance and level of persistence regarding perceptions of college performance. Greene et al. (2003) developed the *Studying and Learning Scale* with modifications from the Greene and Miller (1996) revised *Motivation and Strategy Use Survey*. The 52-item *Learning and Studying Scale* (Appendix K) consists of items representing the subcategories of perceived academic ability for college success (6 items), likelihood of finishing college (4 items), academic persistence (25 items), self-regulation (5 items), meaningful cognitive engagement (6 items), and shallow cognitive engagement (5 items). The scale presents the subcategories in a mixed format. Students respond to the items on a six-point Likert scale of strongly disagree to strongly agree.

Greene and Miller (1996) used the revised version of the *Motivation and Strategy Use Survey* in a study examining relationships among academic achievement and perceived ability, goal orientation, and level of cognitive engagement for 108 college students. Reliability data reported for items contained in three of the six subcategories on the *Learning and Studying Scale*. Reliability analysis for items representing perceived academic ability indicated a moderate correlation of .77. A strong reliability correlation

of .90 was noted for meaningful cognitive engagement. Reliability for shallow cognitive engagement was a strong correlation of .81.

The *Learning and Study Scale* consists of items representingthe theoretical framework of self-efficacy measurement discussed by Zimmerman (2000). Zimmerman (2000) stated self-efficacy measurement occurs through questionnaire items that "focus on *performance measures* rather than personal qualities" (p. 83). The items are "task specific, vary in difficulty, and capture degrees of confidence" (Zimmerman, 2000, p. 83). Opposing questions have been placed throughout the scale to check reliability of participants' responses.

Confidence and Self-Advocacy Scale. A theoretically based *Confidence and Self-Advocacy Scale* (Peterson & Van Dycke, 2003) with 22-items measured students' level of self-efficacy regarding their perceptions of their disability. Items included in the scale represent the subcategories of disability self-awareness (4 items), self-advocacy (10 items), and self-confidence (8 items) with regards to the participant's disability. The *Confidence and Self-Advocacy Scale* (Appendix L) consists of items representing the methods of measuring self-efficacy discussed by Zimmerman (2000). Validity and reliability of the *Confidence and Self-Advocacy Scale* are enhanced by its theoretical foundations. I conducted a visual item-by-item analysis of participants' responses to determine consistency of responses. No additional reliability and validity data exits.

Study Behavior Inventory. The *Study Behavior Inventory Version 2.0* (Mueller, & Gibson, 1982) is a 46-item survey that uses percentile scores to indicate measures of academic confidence, and long and short-term study behaviors. Results of the *Study Behavior Inventory* (paper version shown in Appendix M) provides information on

participants performance in eight areas: time management, study reading, general study habits, listening-notetaking, writing, test anxiety, test-taking, and faculty relations. The results printout includes suggested activities for improvement, and opportunities taking place on the participant's campus to gain support in areas of weakness.

Bliss and Mueller (1978) used factor analytic procedures to determine the construct validity of the paper version of the *Study Behavior Inventory*They collected data from a nonrandom sample of 1,052 college and university undergraduates. Results of the factor analysis indicated three groupings which resulted in the subscales of academic confidence, short-term goals, and long-term goals. Bliss and Mueller reported a high rate of internal consistency for the entire inventory ($\alpha = .99$), as well as, high reliability for each subscale: academic confidence ($\alpha = .86$), short-term goals ($\alpha = .82$), and long-term goals ($\alpha = .81$). Validity and reliability measures were not reported for the computerized version, however both the paper and computerized versions consist of identical items.

Data Analysis

I computed descriptive statistic analysis were computed on all data collected. I used the non-parametric Sign Test to analyze the paired sample results of the pre, during, and post AIR Self-Determination Scale, the Learning and Studying Scale, the Confidence, and Self-Advocacy Scale. The Sign Test uses paired data sets to calculate the proportion of positive differences between the paired scores and the proportion of negative differences between the paired scores. The null hypothesis in the sign test assumes the median change is zero. To determine significance the test measures if the proportion of positive to negative scores differs significantly from .50. For example, if three out of four scores are positive, the proportion of .75 is compared to .50 to determine

if a significant difference exists. Data sets that have equal scores, no increase or decrease between the scores, are considered tied scores and are not used in the calculation. While the Sign Test does not produce a measure of effect size, indices of effect are reported through a calculation of the proportion of positive difference compared to negative differences. For sample sizes of 26 or larger the sign test uses a *z* approximation to report significance. In the case of this study, with a sample size of less than 26, the sign test used an exact binomial distribution which results in a two tailed significance level. I chose the Sign Test due to its ease of use with small- *n* paired samples. The Sign Test compared differences in results between pre-during, pre-post, and during-post data. Assumptions of the Sign Test were met through continuous distribution of scores and independence of each set of paired scores.

Qualitative Case Study Procedures

Data Collection

I collected case study data through participant responses to weekly email questions and participant exit interviews. The weekly emails allowed collection of multiple measures of participants use of self-determination skills. The exit interviews provided participants the opportunity to discuss the specific strategies they found to be effective at increasing their self-determination skills. In addition, I used my notes and observations to provide additional data in the form of student profiles. In my notes, I describe events and conversations that took place during meetings with students. I collected information in my notes following each meeting. I met with the project mentor and a second researcher to verify the accuracy of events and conversations include in my notes.

Weekly email. Each week, beginning with the second week, I asked participants to respond to my email questions. The email contained questions designed to evoke discussion of participants' use of self-determination skills related to academic successes and challenges. With each email I asked participants to describe an academic success they experienced during the past week and discuss what they specifically did to make that happen. Similarly, I asked participants to describe an academic challenge they faced during the week and discuss how they handled the challenge. In addition, each email contained a question related to the topic covered in the weekly group meetings (e.g., motivation, rights, and responsibilities). Appendix N provides a sample weekly email.

Exit interviews. I conducted individual exit interviews with each participant to determine the most effective and useful strategies they learned during the project. Interview sessions took place in a university classroom and lasted approximately 45-60 minutes. While using the primary researcher as the interviewer raises concern over trustworthiness of the data, it did allow for a comfortable relationship for the participant to share personal feelings and experiences. My knowledge of the interviewees provided additional insight into the honesty of responses. The types of questions asked may have restricted data collected from interviews and questionnaires by limiting student responses. In order to ensure the quality of the data collected, I provided participants with the opportunity to verify identified themes. Prior to this member checking, a second researcher evaluated the data for themes to validate the identified themes. In addition, I used my researcher notes and observation information provided in the student profiles to triangulate participant responses.

During the interview, I asked participants to discuss benefits, the most important things they got out of the experience, and specific strategies they will use in the future. Appendix O provides the interview protocol. I used additional prompting techniques (e.g., “could you be more specific,” “could you tell more about that”) to guide participants in providing specific information related to the interview questions. Interview sessions were audio recorded and transcribed for analysis.

Data Analysis

Students responded to an average of 1.33 emails during the first five weeks of the project. Due to limited response rate of weekly emails, I incorporated email data into student profile data. Profile data provides insight into student behavior and academic performance.

I coded transcribed interview data for common themes related to effective and useful strategies using thematic categories. Specifically, I evaluated data for themes related to three emergent research questions. A second independent researcher verified coded themes. Participants performed a final verification of themes through email. Analysis of the coded data followed the modification of the Stevick-Colaizzi-Keen method by Moustakas that has been detailed by Creswell (1998). I compared statements about the topic across participants and grouped into units of meaning to classify the data. I used themes from participant’s statements and the researcher’s observations to provide interpretation of the data, and statements from each participant to represent a description of strategies to support the interpretation of the case.

Intervention Procedures

Students involved in the project had the opportunity to participate in group meetings, individual meetings, and receive informal support as necessary. Project lessons and meetings occurred over a period of 19 weeks. See Appendix P for a session-by-session topic agenda. I structured each lessons agenda to present topics related to specific student needs and characteristics of academic success reported in Chapter One. I chose to use the *Model for Self-Determination* (Field & Hoffman, 1994), depicted in Figure 1 of Chapter One, as a guide for planning lessons because of its incorporation of environmental influences. For most students, transition to the university setting represents a change in life style, therefore providing support to university students requires consideration of how the student functions within the new environment. With this understanding, I tailored the delivery of lesson topics to coincide with events occurring at the university. For example, we began project lessons with the discussion of student rights and responsibilities, knowing that at the time students were struggling to receive academic accommodations they needed for midterm exams. Rights and responsibilities also happened to coincide with one of the beginning phases of self-determination in the *Model for Self-Determination*, value yourself. In another instance, planning instruction occurred prior to finals examination week. This provided a natural exercise in which to practice planning and scheduling of classes, exams, study time, and work.

Additional project lessons followed a similar delivery design. After the introduction of the concept of self-determination using the *Model for Self-Determination* (Field & Hoffman, 1994), lessons followed each component of the model. Appendix P identifies the specific component of the *Model for Self-Determination* addressed by each

lesson. Student self-awareness and disability awareness activities included assessments and literature addressing the *know yourself* component. Students completed the *COMPASS* (ACT, 2002/2003) diagnostic assessments at the University Assessment Center to identify specific academic strengths and weakness. *COMPASS* diagnostic assessments provided percentile scores for specific indicators of students reading, writing, and math skills. Discussion and opportunities to identify personal strengths, and the discussion of rights and responsibilities addressed the value yourself component. Plan phase lessons covered calendar organization, planning, and scheduling, and goal attainment planning and evaluation. I used the *Take Action* (Huber Marshall, Martin, Maxson, et al., 1999) goal attainment process to guide students through setting a goal, creating a goal plan, acting on their goal, evaluating the plan and action, and making adjustments to the plan. The *Take Action* process (See Appendix Q) encompassed many of the *Model for Self-Determination* components. In association with the act phase, we discussed issues related to disability disclosure and invited a speaker from the office of disability services to address accessing accommodations. Weekly emails asking students to identify successes and challenges of the week guided students to consciously evaluate and learn from experiences.

The project provided students with a tabbed three-ring notebook to organize materials and handouts, a textbook entitled *Keeping A Head in School: A Student's Book about Learning Disabilities and Learning Disorders* by Mel Levine (1990) to support disability awareness, and a monthly-weekly calendar for planning. I provided students with Power Point notes of each lesson topic. Primary products developed through the

project lessons included an individualized accommodation plan, a student goal attainment plan, and a planned schedule of assignments, tests, and studying time.

Intervention Fidelity

To determine fidelity of the intervention, a second researcher used an activity checklist developed from each lesson agenda to observe 30% of the group meetings. A comparison between intervention checklists completed by the observer and the instructor maintained a 100% interrrater agreement.

Group Meetings

Intervention procedures included nine scheduled one-hour group meetings. Chapter Four, Table 4 presents a schedule of lessons and dates of student participation. The meetings took place in a university classroom or at the Zarrow Center for Learning Enrichment. Group meetings covered the topics listed in Appendix P. Additional attendees to group meeting included the student mentor, secondary researcher, faculty members, and guest speakers. Snacks and refreshments were served at the majority of the group meetings. On two occasions the group meetings occurred in a community restaurant.

Mentors

One graduate student with a learning disability attending the university volunteered to serve as a project mentor. Recruitment for project mentors took place through a mass email to university juniors, seniors, and graduate students (Appendix E). The individual who participated in the project worked as a graduate assistant at the Zarrow Center for Learning Enrichment. The mentor participated in the majority of group meetings and social activities. Prior to involvement in the project, the mentor signed a

consent form indicating agreement to maintain confidentiality of project information (Appendix Q). Following the completion of the project, student participants had the option to volunteer to become mentors for new students participating in future LEAD groups.

Individual Sessions

Students participated in individual sessions as necessary to make-up missed scheduled group meetings, review personal assessment results, or receive specific accommodations. Individual meetings were held in a designated classroom or at the Zarrow Center for Learning Enrichment, and generally lasted between one and two hours.

CHAPTER FOUR

Results

With this study I wanted to determine if implementation of a support network and direct services would increase the *level of self-determination, level of self-efficacy regarding perceptions of college performance, level of persistence regarding perceptions of college performance, level of self-efficacy regarding perceptions of personal disability,* and *increase the study behavior percentile scores* of university students with a learning disability and/or attention deficit disorder.

Student participation and completion of project activities impacted implementation of the LEAD support network and self-determination instruction. Table 2 provides the dates in which students completed project lessons. From the beginning of the project student schedules made it difficult to schedule group meetings. There was never a point in time during the project where all participants attended a meeting together. Students would frequently not make the meetings, which would result in rescheduling. They would often not show up after they said they would be attending, and occasionally, it would take over a week before they could meet with me. Students missed scheduled meetings an average of five times each, and rarely called to say they were not coming or reschedule. This was particularly apparent in Lesson Ten, where I had planned a discussion relating to disability awareness. Each student had chosen specific sections of the *Keeping a Head in School* (Levine, 1990) book to read and share with the other students. One student said they could not make the meeting, the other students said they would be there but did not show up. I rescheduled the group book discussion for Lesson Twelve. All of students said they would attend, only one student came. The student who came had already missed several weeks of lessons and was not prepared to discuss the

book. Since he was the only one to attend, we used the time for him to make up a missed meeting. I rescheduled the book session for Lesson Thirteen to discuss with each student individually. While extreme this example demonstrates the attendance issues and provides insight into the participation habits of the students involved in the study.

Table 2

Lesson Completion Dates by Student

	Student					
Lesson	Naomi	Horatio	Hannah	Daisy	Syx[a]	Jack[a]
1. Consent, Pre Measures	11/21/03	11/7/03	11/10/03	11/14/03	11/7/03	11/11/03
2. Academic Motivation, Rights and Responsibilities	11/14/03	11/14/03	11/19/03	11/14/03	3/1/04	11/17/03
3. Planning Strategies	11/21/03	11/21/03	11/20/03	11/21/03	11/21/03	11/20/03
4. Issues of Disclosure	12/4/03	12/4/03	4/6/04	12/4/03	3/1/04	12/4/03
5. Social Lunch, During Measures	12/9/03	12/12/03	12/12/03	12/9/03	12/12/03	12/9/03
6. Social Lunch, Self-Determination	1/20/04	1/20/04	1/20/04	1/27/04	3/8/04	1/26/04
7. Review of Assessment Data. Accommodation Plan	1/27/04	4/12/04, 4/22/04	1/29/04	4/20/04	-	1/26/04 – No Accommodation Plan
8. Goal Attainment Strategy	2/5/04	3/2/04	2/3/04	4/20/04	3/8/04	2/3/04

a. Participants did not complete the project.

Table 2 (continued)

Lesson	Student					
	Naomi	Horatio	Hannah	Daisy	Syx[a]	Jack[a]
9. Evaluate Goal Attainment Plan	4/22/04	4/22/04	2/12/04	5/6/04	-	-
10. Disability Awareness Book Discussion (Reschedule to #12)	-	-	-	-	-	-
11. Accommodations, Guest Speaker form Office of Disability Services	4/22/04 Independent Assignment	4/22/04 Independent Assignment	4/13/04 Independent Assignment	4/20/04 Independent Assignment	2/24/04	2/24/04
12. Disability Awareness Book Discussion (Reschedule to #13)	-	Came Completed Session #8	-	-	-	-
13. Disability Awareness Book Addressed (Modified from #10 and #12)	1/27/04	4/12/04	1/29/04	4/20/04	-	-
14. Exit Interview, Post Measures	4/27/04	4/27/04	4/20/04	5/6/04	-	-
15. Independent Support	3/4/04	3/11/04				
16. Independent Support	3/9/04					
17. Independent Support	4/8/04					
18. Independent Support	4/13/04					

a. Participants did not complete the project.

Students frequently did not complete homework assignments. During the first project meeting I asked students to complete the Study Behavior Inventory and *COMPASS* (ACT, 2002/2003) Diagnostic Assessment at the University Assessment Center. Students received repeated reminders through weekly email contact, phone calls, and during project meetings to complete the assessments. By the end of the fall semester I asked the students to at least complete the Study Behavior Inventory before leaving for the semester break. Only two of the original six participants completed the assessments and only one of these students completed the entire project. Table 3 depicts the diagnostic and study behavior assessment completion dates for the final four participants.

Table 3

Student Diagnostic Completion Dates

Student	Study Behavior Inventory	COMPASS Diagnostic
Naomi	12/03/2003	12/03/2003
Horatio	4/01/2004	4/01/2004
Hannah	1/28/2004	4/08/2004
Daisy	4/20/2004	12/04/2003
Syx[a]	-	-
Jack[a]	11/18/2003	11/18/2003

a. Participants did not complete the project.

As a result of participation inconsistencies, lack of data impeded fully answering the original five research questions. From this situation emerged additional questions. This results chapter will address the principle five research questions followed by three additional questions. I begin the results with a narrative profile of each student as a foundation for data interpretation. Each of the final four participant's profile offers an opportunity to view the student's perspective of postsecondary education. I included

personal reflections of student's feelings at the time the pre, during, and post measures were completed at the end of each profile. Student reflections took place during the exit interview. Finally, results specific to each research question are presented. Research question results are organized by two categories: (1) principle research questions, and (2) emergent research questions.

Student Profiles

Naomi's Profile

Naomi, an 18-year-old freshman, joined the LEAD project at the request of her aunt. A private practitioner diagnosed her as having a learning disability and an auditory processing disorder during her junior year in high school. Naomi attended a private high school where she did not have an IEP. I have known Naomi longer than I have the other student participants, I met more often with Naomi, and I think Naomi had the most difficulty overcoming her challenges during the time period of the project.

I first met Naomi when she and her aunt toured the campus during the summer before starting her freshman year. She and her aunt met with a professor who sponsored her admission it to the university. I did not know the whole story at the time, but apparently Naomi did not have either a GPA or test score high enough to get her admitted. The sponsorship allowed her to be conditionally accepted into the university. One of Naomi's conditions for admittance to the university was that she would see a counselor. Naomi seemed really positive about the upcoming semester and excited to be at the university.

My first impression of Naomi was that she was a very energetic young girl. She appeared bright and outgoing. When we started the fall semester Naomi's faculty sponsor and I kept in touch with her to make sure that she registered with disability support

services and participated in university activities. Naomi did not initiate the process of registering with disability support services, so the LEAD project mentor went with her to schedule an initial appointment. I think going with the mentor eased her into the process, because Naomi saw the mentor registering for her own services. Naomi did not receive support services for at least the first four weeks of the semester, because she had to wait several weeks to have her intake appointment with the disability support services office. Naomi did contact me once or twice to see if the project had started. I told her I would keep her informed and let her know when it started after I got permission from IRB to recruit students for the project.

When we first met as a group, Naomi was one of the three students to attend. She seemed excited about the project and still excited about the semester. While I knew Naomi struggled with depression, her outward appearance portrayed the opposite. Unlike many students of her age, Naomi said she knew exactly what she wanted as her major. She was very adamant that she was going to study microbiology. She also was very adamant about taking a full freshman load of courses so that by the following fall she would be a sophomore. After a few minutes of discussion, I realized school was not going exactly as she had planned. Naomi performed poorly on her tests, had not completed all of her assignments, and skipped most of her classes. As time passed Naomi continued to come to project meetings, she continued to have a difficult time with school and her academic confidence appeared diminished. Naomi did not openly admit the problems. After talking with her for awhile, her struggles emerged. She continued to tell me that she would take care of things and everything would to be okay. Naomi didn’t

make it through the fall 2003 semester as well as she had hoped. She ended up with a 1.75 GPA and the university placed her on academic probation.

Naomi continued with the project through her second semester. Her faculty sponsor told me that she was having difficulty dealing with her depression and was off her medicine for several weeks. Naomi had also not seen a counselor. Naomi met with me several times and talked to me about her difficulties, study habits, class attendance, and socializing. She talked about how she had a difficult time making herself get her work done and was spending more time than she should sleeping. Her sleeping interfered with her getting to class and even began to become a problem in her attending project meetings. Naomi said that she had become friends with a suitemate and they had ended up becoming roommates. She felt her roommate was very supportive and would frequently help her with academic study details. She said her roommate would even be there to tell her to get out of bed when she slept too much. Naomi commented on how smart her roommate was and did not need the kind of supports she required. Together with her roommate, Naomi attended several religious student group meetings. She said she enjoyed the meetings, but did not indicate that she would continue to be a part of the group.

As the semester progressed Naomi's confidence in her abilities continued to diminish. When we reviewed her Study Behavior Inventory results, her seventh percentile academic confidence score verified the difficulties she was having. Despite all of this, I could tell that Naomi really wanted to be successful at the university, she just did not know how to make that happen. I would talk to her about whether or not she had seen a counselor for her depression. She told me she had made an appointment, but she

really wasn't sure how the counselor was going to help her in school. During this conversation, I shared a little of myself with Naomi to show her how I related to what she was feeling. We talked about always asking yourself the *real why* behind your actions to get at the real reason for their occurrence. For example, when Naomi would not get up to go to class she would tell herself it was because she was tired and did not want to go. Then she would ask herself why she really did not want to go, which allowed her to stop thinking of answer that others would accept and think about what she was really feeling. We also talked about the struggle to overcome academic challenges when your mind is busy dealing with issues in so many areas of life. Naomi told me she was beginning to understand how a counselor may be able to help her be more successful in school.

Naomi constantly describes herself as *lazy*. I know of one occasion when her family member also referred to her behaviors as lazy. I really wanted Naomi to learn that behaviors she considers lazy are a result of her learning disabilities and depression. In the exit interview, she expressed realization that many of her behaviors are a result of her disabilities, not laziness. At the time of the interview, I did not know if Naomi would be returning to the university the following semester because of her GPA. In fact, during finals week I spoke with Naomi and she had missed taking a final in one of her classes. Apparently, two different dates were given for the final one on the syllabus and another on Blackboard. The instructor corrected the mistake in class, but Naomi remembered the wrong date and did not attend class the day of the final.

During the exit interview, Naomi expressed what she had learned about herself over the two semesters at the university and about her participation in this project. She had become more realistic about her abilities and began to make future plans based on

that knowledge. When I asked Naomi to share something that represents a success and something that represents a challenge for her, she brought me her drawing books. For Naomi drawing was a success and a challenge. She has always wanted to be able to draw, but did not think she was capable. She took some art classes and practiced. She said "I don't know why, I just kept trying and trying, and trying because I really wanted to do it." Her sketches were skillfully drawn and creative. I told her not everybody has the artistic skill that I could see in her drawings. Naomi realized she had become more skilled over time, but still expressed uncertainty in her abilities. Although, Naomi's spring semester GPA met the minimum criteria for her to remain at the university, she chose not to return.

Naomi's reflection. Pre: "Actually, I was pretty darn determined that I was going to do good in college. That I had it stuck in my head that I was going to do good and this is what I was going to do and I had everything planned out and I don't know if you remember this, but I was like I'm going to be a microbiologist and I'm going to be a crime lab analyst because I'm going to have a degree in microbiology and that's just that. That's what's going to happen and I'm going to get through these years and I'm going to do really good and about a month or so into it I was like, yeah, I'm still really confident in all of that, but I didn't really want to do that but I don't know. I mean it was like my grades weren't showing what I wanted."

During: "Very low. Not, I mean I still knew what I wanted but very, very low in confidence that I could actually do it. . . . I still knew what I wanted, but I was thinking am I going to be able to do it. I was realizing that I was missing a couple of steps in my wanting to do it. I wasn't actually doing the basic steps of passing the classes."

Post: “Now, I'm confident that I can do it. It's not a matter that I don't think I can. It's just, it's like it's becoming more real to me that I need to slow down first off. I can't just say that this is what I'm going to do and know that I can do it. I'm learning that maybe microbiology isn't, isn't for me. I'm taking the very first lowest science class like zoology and I like it. I like what I'm learning. It's just, I don't know if I like it enough to continue to learn about it for four to five years. . . . And you know, it's, you know everybody wants to change their major at some point in their life usually. Some people pretty stick with it. Pretty good with it and I thought I was going to be one of those people that just didn't want to change it. But I don't know, I have a lot of ideas about what I want to do and I think maybe with some of the things that I'm learning in this class or that I did learn I might better understand and better, might be able to use my strengths to do something different.”

Horatio’s Profile

Horatio, a 19-year-old third semester freshman joined the LEAD project based on a recommendation from his mom. A private practitioner diagnosed him having a learning disability, attention deficit disorder and an auditory processing disorder his senior year of high school. Horatio attended a private high school where he did not have an IEP. Before coming to the university, he completed one semester of coursework at a community college. He transferred from the community college to the university, however, was unable to transfer credits due to unpaid parking tickets at the community college. Horatio told me he would work during the upcoming summer to pay the tickets so he could transfer his credits. At the end of his participation in the project Horatio had completed three semesters at the university.

Horatio was referred to the project from his mom. Horatio is Naomi's cousin. I first had contact with Horatio was through an email I sent him regarding his mom's interest in his participation in the LEAD project. When he started, Horatio was on academic probation and repeating many of his freshman classes. Horatio joined the group and came to every meeting for the first two months. During the meetings, he participated in group conversations, but didn't appear to be excited about being there. Horatio openly talked about his past academic difficulties. He said that currently things were going well, except in math, which was the most difficult for him. Horatio said he knew what he needed to do, he just needed to do it. However, at the same time he would discuss that he really didn't need to study for final exams. Horatio would say there were a few things he needed to look over, but he did not need to study. He did mention that he sought help from his math instructor every week. This was great to hear, because up until about the last month of the semester it seemed as if he was going to end up failing math again. The question that remained was why Horatio didn't seek help earlier particularly when he was not doing well and had failed the class the previous semester. Even though he knew at the beginning of the semester that he had to get good grades this semester or he would not be able to stay at the university, he really did not feel the pressure until after midterm when his grades were not as high as he needed. Horatio ended the fall semester with a 2.00 GPA.

Horatio regularly attended project meetings and events during the first two months. After the fall semester break Horatio attended the first meeting of the new spring semester. During this first of the spring semester meetings, the group discussed the importance of GPA for future employment. Horatio threw his head in his hands on the

table and said “I am never going to get a job.” It was at this point I thought the importance of doing well in school had really sunk in for Horatio. It seemed as if he no longer thought college was just a hoop to jump through, but an actual step to get him where he wants to be in the future. Horatio then decided to participate in the project for university credit. He signed a form giving permission that the course credit be added to his schedule, and that was the last time I saw him for several months.

The research team regularly tried to contact Horatio through emails and phone calls to let him know about weekly scheduled group and individual meetings. Several times Horatio said that he was coming to the meetings, but did not show up. Other times he did not return phone calls and did not respond to emails. Once, one of the research team saw Horatio in the student union. Horatio apologized for not staying in contact or showing up for meetings. He said that he would contact the researchers to make an appointment to meet. He never made that contact. When mid semester progress reports had to be submitted, I emailed Horatio to let him know that he was failing the course and needed to attend the next meeting or I would administratively withdraw him from the class. I received an email back from him that he would be attending the next meeting. He did come to the next meeting and only had to reschedule one other meeting until the end of the semester. Horatio seemed to enjoy the rest of the meetings and completed all assignments. After the exit interview, Horatio expressed that he appreciated the support and enjoyed the project. He mentioned that he had missed so many meetings because he would not put the meetings in his electronic planner or set an alarm to remind him to attend.

Horatio expressed an interest in registering with disability support services. He said that up to that point he wasn't really sure how they could help him. Since Horatio had previously talked about checking into disability support services and had not done so, the project mentor and I took him to the support service office and helped him get information on what documentation he needed to register. Horatio had the documentation, but never made an appointment to register event. He said that he still intended to register for services in the future.

In the exit interview, I asked Horatio to share something that represented a success for him and something that represented a challenge. Horatio said "anything with math in the title or description is a challenge to me." Along with this he talked to me about occasionally liking a challenge, but math was one of those challenges that he never wanted to have. He was happy to say that he had completed all of the math classes for his degree.

Horatio did not bring the item that represented success for him to the exit interview. His parents were buying him a car this summer because after four semesters in postsecondary education he had finally successfully completed thirty semester credit hours. He had made a deal with them before going to school where they would get him a car after he completed his freshman year. Horatio said, "That car will say academic success."

Horatio's reflection. Pre: "I wasn't doing well. I think I was failing a couple of classes. Yeah, I know I was. And I don't know. I didn't really know if I wanted to keep doing school. I wasn't sure what I was going to do."

During: “By the end of the semester though, I had pretty much turned it all around. I saved myself in all of my classes except for one which I was aware was going to happen anyways. I just never went through the steps of withdrawing from it. Let's see, but at the end of the semester, I was much more, I won't say I was excited about school, but I was excited about doing well or interested at least. Didn't want to just give up anymore on school.”

Post: “So, the next semester, this semester I did much better and yeah, I don't know.”

Hannah’s Profile

Hannah, a 19-year-old sophomore joined the LEAD project through a recommendation from her mom. A private practitioner had diagnosed her as having an attention deficit disorder her junior year in high school. She attended a public high school and reported that she did not have an IEP while in school. Upon graduation, she completed two semesters of coursework at a community college, then transferred to the university. At the time the project ended Hannah had completed two semesters at the university.

Several months into the fall semester, I was forwarded an email from Hannah’s mom. She was concerned about her daughter’s academic performance and the process of receiving supports from the university disability support services office. In the email she discussed how Hannah had failed most of her tests up to that point in the semester. She was worried that Hannah would not be able to stay in school. She also was concerned about Hannah maneuvering through the process of accessing disability support services and the timeliness of services. She told me that Hannah was *shy* about discussing her disabilities. Hannah’s mom had heard about the project and indicated that *they* wanted

Hannah to participate. I was concerned that mom was the one interested in the project not Hannah. I gave Hannah's mom more information about the project and asked that Hannah contact me if she is interested.

Hannah was a sophomore transfer student who had taken most of her prerequisite classes at a community college. She enrolled at the university with an interior design major. Hannah's aunt owns an interior design company, so Hannah has spent time discussing the career with her aunt and feels confident she has chosen the right career for herself.

Hannah generally planned to attend LEAD meetings. During the first few months she would frequently call at the last minute to say she could not make it to a meeting because she had to study for a test she had forgotten. Once Hannah could not come to a meeting because she was going Christmas shopping with a friend. Similar to the other student participants, Hannah had difficulty attending meetings and staying in contact mid way through the second semester of participation.

During the project group meetings Hannah talked little, so it was difficult to tell what she gained from the discussions and activities. In individual meetings, Hannah would discuss her struggles with the amount of time it took to complete her homework and difficulties with receiving accommodations. One particular incident related to taking a test at the disability support services office. Hannah had registered for services and received extended time as an accommodation and she could take the test at the disability support services office. In accordance with standard university policy, she had been told that her instructors would be notified of her eligibility for accommodations. Hannah thought that was all that needed to be done for her to get the accommodation. On the day

of the test, Hannah went to the testing center to take the test and it had not been delivered. She ran to the class, getting there after the test had already begun. She talked to the instructor about how she was supposed to be taking the test at the testing center and asked if she could carry the test there herself. Hannah said the instructor was rude to her and said in a loud voice that he had no idea what she was talking about, he was not aware that she needed special treatment, and the test had already begun so if she wanted to take it she would have to sit down and take it there. Hannah talked about how she felt embarrassed and did not know what to do, so she stayed there to take the test. She was upset that the instructor had talked about her difficulties in front of the class and was not supportive of her accommodations. She did not do well on the test. Later, with the help of the disability support services office, Hannah worked with the instructor to retake the test in the testing center. Hannah told me that she now knows she has to talk with her instructors about her disability, but it is not always easy. In one of her classes, Hannah said the instructor was talking about the concept of open classrooms, which used to be a popular design in elementary schools. She said the instructor made a comment about students being educated in the distracting open concept design and how he thought that was why so many students were diagnosed with attention deficit disorders who probably did not have the disorder. Hannah felt offended by the comment and on more than one occasion told me she would not discuss her disability with this instructor because she didn't feel he would be understanding.

Hannah struggled with a class during the fall semester from which she eventually withdrew. Since it is required for her major she must take the class in the future. Hannah ended the fall semester with a 2.70 GPA. One problem Hannah had with this GPA came

form her involvement with a sorority. Hannah really had wanted to be involved in a sorority and was accepted into one on campus. At the time she was initiated into the sorority their minimum GPA requirement was a 2.70. Hannah thought she would be okay with her grades until the sorority raised their minimum GPA to 2.75. Hannah was called in to meet with one of the sorority committees to talk about her GPA. She told me the meeting went well and she discussed her disability with them. The committee decided she would not be put on social probation this semester, but she needed to keep working to improve her GPA. Hannah continued to be overwhelmed with the demands of her spring semester classes, but improved her grades.

In the exit interview I asked Hannah to talk about something that represents a success for her and something that represents a challenge. Hannah reached into her bag and pulled out several books and said "these marketing books." She talked about how boring marketing is and how she dislikes the subject. Hannah had previously mentioned how she struggles with the class. She said that her lack of interest in the subject greatly effects her performance.

Hannah brought her pledge pin as an item representing her success. She shared how difficult it was for her to pledge a sorority. When she first decided to join a sorority she was not aware her GPA and test scores would be a part of her application. The first pledge day she was cut from the sorority she wanted to join because of her low scores. She was cut from all of the *top houses* except one. As Hannah described the pledge process, I could see how she had been upset by what happened. She said based on her GPA and test scores, the sororities had made a decision about her before she had even

met them. Hannah did get accepted into a sorority and is very pleased with the final outcome. It was important to her that the sorority would look at her and not her scores.

Hannah's reflection. Pre: "School was going really bad then. Really, really bad. Because I didn't really know what to expect from any of my professors, and I think I had like failed all of my first tests, and so that's when I realized like that this was really going to be you know I'm going to have to put in a lot more effort than I had been and you always say, well, you flunked the first test and you can figure out what's going on and how they grade and how they ask questions, but when you're in a class that doesn't really have homework and doesn't do anything but four tests the whole semester, you can't really have a chance to mess up on the first test. And so I think that's when I really kind of decided I'd better get on the ball or it could be real bad.

During: "I felt a whole lot better at the end of the semester, because I came out with a 2.7, and which isn't great, but after failing all of my first tests and struggling through all my classes, I was really glad to come out and pass. Well, I didn't pass one of them, but my teacher was never there, so . . ."

Post: (Not mentioned in the interview.)

Daisy's Profile

Daisy, a 20-year-old junior joined the LEAD project in response to the mentor recruitment email sent from the disability support services office. She had been diagnosed with a learning disability in high school. She attended a public high school and she reported utilizing special education programs, however she indicated that she did not have an IEP while in school. It is possible that she had an IEP, but was unaware of having one. After graduation she completed two semesters of coursework at a community college. She transferred from the community college to the university because her dad

had always wanted her to go to the large university he had not been able to attend. At the time the project ended Daisy had completed four semesters.

Daisy replied to the mentor recruitment email with interest in being a mentor for the project. When I spoke to her about the project she was given the opportunity to be in the project as a participant or a mentor. Daisy chose to participate in the project. Daisy was not able to attend the first meeting, but we scheduled a make up session. Daisy indicated that she would be able to meet at 12:30 p.m. on a specific day. She said this would get her done with the meeting before her class. She came to the meeting running a little late and at about 1:00 p.m. she jumped up having realized that her class started at 12:20 p.m. and she had missed most of it. She asked if she could tell her instructor where she had been, because her instructor had talked to her about getting help. She left and we finished the session at another meeting.

Daisy had a pattern of being late to meetings and occasionally had to reschedule because of work. Several times Daisy would say that she could be at a meeting and then called me right back to tell me that she was wrong, she has to work on that day. Daisy's scheduling issues made me hopeful she would benefit from calendar organization strategies. During the calendar lessons, Daisy said that she was using a palm pilot. She wanted to keep using her palm pilot even when the assignment was to try and use a written monthly/weekly calendar for developing a finals schedule. I felt that it was Daisy's decision to decide the best scheduling system for herself. The difficult part was that Daisy, like many of the other students in the project, did not realize that the system she was using did not work for her.

On another occasion the group was planned on going out to lunch at the end of the semester. Daisy was present during the discussion of when to go to lunch. The day that we chose was a day that Daisy had to work. She said that day was fine, and she could take her lunch break to join us. I asked what time would be good, she told me, and I confirmed that the time would work for her. She told me that she had never been late from a break or lunch, so she had demerits she could use up meaning that she could be up to two hours late and not get in trouble. While that seemed unusual I knew that she wouldn't be two hours late from lunch, so we set the time for lunch. When it can time for the lunch Daisy was running late. When she arrived, she ate lunch with us and ordered dessert. She then went to the restroom and upon returning looked at her watch and panicked saying she was late and had to get back to work. She ran out without finishing her meal. What was not a problem during planning became a problem during the event once again. Daisy had one other similar incident with attending a meeting. While Daisy continued to tell me she was not usually late, her actions communicated something completely different. Similar to the other student participants, Daisy had difficulty attending meetings and staying in contact with project staff midway through the second semester of participation.

Daisy was a transfer student who had taken most of her prerequisite classes before coming to the university. Daisy enrolled in the university as a business major. She loves art, particularly glass blowing, and thought she would like to have a business selling her artwork. I met Daisy during her third semester at the university and the first time she took a full course load of business classes. Daisy ended up withdrawing from one course and earned a final GPA of 2.50. She soon decided business was not for her, but did not know

where to go with her career. She thought about teaching art, but was really not sure. During the first two months of the project, Daisy had talked about seeing a career counselor outside of the university. She said that she had visited the university's career counselor and did not get helpful information. Her goal was to find some direction so she could declare a major. I was impressed to see her follow through with her idea of seeing a private career counselor. She went to see a career counselor several hours away who worked on a sliding fee scale. Daisy shared the process she went through with the other students. Several of the students thought it was good idea to explore career options with a career counselor. Daisy said that this experience was the most accurate information she had ever received. It helped her avoid taking some classes she was going to take and look into the possibility of an interior design major. She still was not ready to make a commitment to a major. We discussed how she could go about taking one or two classes in that area without declaring a major.

During the next semester she talked about how much she loved interior design classes and thought she had finally found her major. Classes were tough and the homework was difficult for her. Daisy started the semester turning her first assignments in late. She said that something was going to have to change between her school and work schedule. Several times a week Daisy would stay up all night completing homework assignments. I also had the experience of talking with Hannah from the project who was in two of the same classes, so I understood the demands of their classes. Both girls felt that the average student in the class was spending long hours on the assignments, but they both believed they spent more time because of their disabilities. Daisy said that she tried to cut back her work hours, but her boss would still schedule her

for too many hours. She worked at a department store and did not want to lose her discount. Daisy was registered with the disability supports service office and received extended time for tests and assignments as an accommodation. This accommodation made it easier for her turn her assignments in late without being penalized, but she talked to me about how things could not be too late because they would start to pile up. By the end of the semester Daisy had figured out a way to not work so that she could focus on school and finish.

During the exit interview I asked Daisy to tell me about something that represents a success for her and something that represents a challenge. She told me about her sketch book and her difficulty with drawing. She said she really does not like to draw because it is such a challenge, but she has to be able to draw well for her interior design major. When I asked her how she was going handle this challenge she talked to me about a plan she has to get in touch with her former art teacher and ask her if she would be willing to give her lessons over the summer. It was great to hear how quickly Daisy was ready to address her challenge. This same behavior was apparent in Daisy's discussion of her success. Daisy is going to Paris, France this summer. She has always wanted to go and heard about an opportunity through the interior design program to go with a group and receive course credit, but they have a limited number of slots available. Daisy was so excited she immediately gathered all of her information together, was one of the first to turn it in, and was able to get one of the few slots.

Daisy's reflection. Pre: "I was kind of really confused and at that point I hadn't decided what I wanted to do, I hadn't changed my major, so I didn't really know where I was going or what I wanted and . . . the classes that I was taking I realized that there is no

way that I could continue on with those classes. They didn't interest me to the extent that it would require for me to get a degree in that field. So I mean I had to drop one of the classes because I just, I was lost and couldn't understand it and I mean I made okay grades but to the extent though I didn't want to do that. So academics had a lot to do with that decision for sure."

During: "By the end of the semester I realized that I didn't want to do that and that's when I had taken that test about future, like that career test, and that led me in the direction of the interior design. Which even then I first went to art because I was going to go to art but then I kind of really, I like art but not the art that is here and so they kind of weren't sure if they were going to be able to let me in because it was mid, in the middle of the year, so I kind of took my paperwork and went to the interior design and figured that out and take that first semester and see what I thought."

Post: ". . . then I did finally find a major that fit me . . . and that's where I'm at now and I'm definitely am glad that it happened that way and I finally, this is what I want to do."

Research Question Results

Principle Research Questions

Principle question one. To determine if implementation of a support network and direct services for developing critical self-determination skills will increase the *level of self-determination* of university students with a learning disability or attention deficit disorder.

Means and standard deviations for students *AIR Self-Determination* scores are provided in Table 4. *AIR Self-Determination* scores fall within a minimum score of 0 to a maximum score of 120. Group means indicate a fraction of a point decrease in self-determination scores from pre to during and a 8.50 increase in scores from during to post.

Table 4

Descriptive Statistics for *AIR Self-Determination*

AIR Score	*N*	*M*	*SD*
Pre	4	87.75	15.97
During	4	87.50	11.62
Post	4	96.00	15.94

Results of student self-determination scores using the two related samples sign test calculated on an exact binomial are shown in Table 6. Three out of four of the students indicated lower self-determination scores during the course of the project compared to their pre participation score. Three out of four students indicated higher self-determination post scores than during and pre scores. Increases in pre to post scores gained by 27% for Horatio, 9% for Hannah, and 8% for Daisy. Naomi had a decrease of 12% in pre to post measures. The two-tailed exact binomial sign test indicated no

significant differences between the pre-during (p = .625), during-post (p = .625), and pre-post (p = .625) self-determination scores. Figure 4 depicts a visual representation of the fluctuation in individual student's pre, during, and post self-determination scores.

Table 5

Sign Test and Indices of Effect Size for *AIR Self-Determination* Paired Samples

	n			Proportional Difference		
AIR Score	(+)	(-)	Ties	(+)	(-)	*p* (2-tailed)
Pre - During	1	3	0	.25	.75	.625
During - Post	3	1	0	.75	.25	.625
Pre - Post	3	1	0	.75	.25	.625

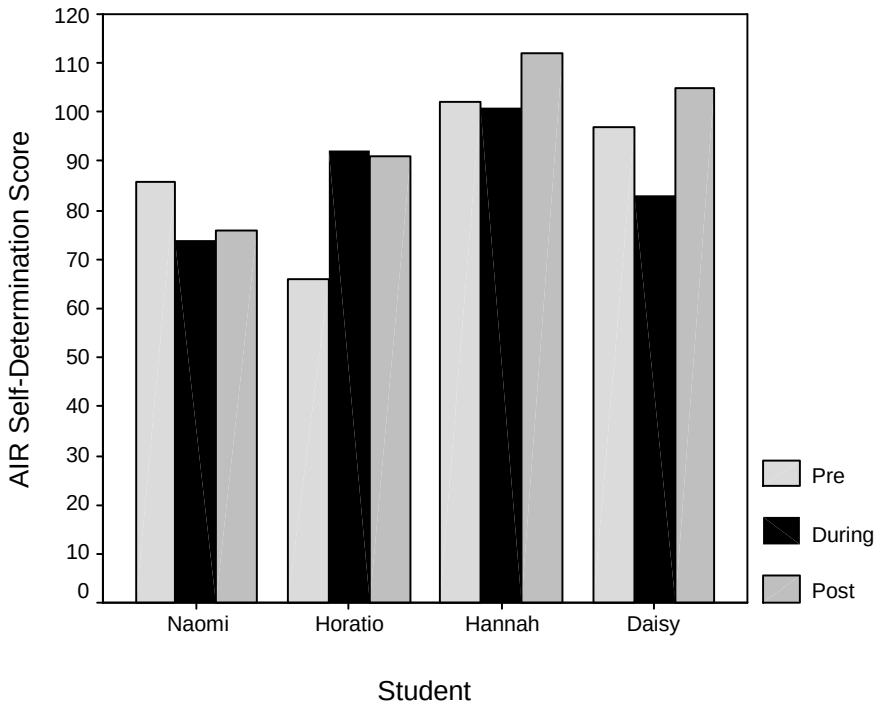

Figure 3. Individual student pre, during, post *AIR Self-Determination Scores*.

Principle question two. To determine if implementation of a support network and direct services for developing critical self-determination skills will increase the *level of*

self-efficacy regarding perceptions of college performance of university students with a learning disability or attention deficit disorder.

Means and standard deviations for overall student pre, during, and post perceived ability of college success are provided in Table 7. Student perceived ability of college success was calculated on a scale of a low of one and a high of six. Group means indicate an overall increase in perceived ability of college success from pre to during and again from during to post.

Table 6

Descriptive Statistics for Perceived Ability of College Success

Perceived Ability	*N*	*M*	*SD*
Pre	4	3.96	1.93
During	4	4.58	.61
Post	4	4.96	.83

Results of the two tailed sign test are provided in Table 8. Two of the students indicated higher and two indicated lower perceptions of their ability for college success from the pre to the during measure. Three out of the four students had a positive increase in their perceptions from the during measure to the post measure. The comparison of pre to post measure indicated two students with increase in perceptions and one with a decrease. Naomi's pre to post score increased by 30%, and Horatio's pre to post score increased by an overwhelming 60%. Daisy had a slight decrease of 3% and Hannah showed no change between pre and post measures. The fourth student's score showed no change causing a tie and the exclusion of those scores from the analysis. No significant findings were found in the comparison of the pre-during (p = 1.000), during-post (p =

.625), and pre-post scores (p = 1.000). Figure 3 depicts a visual representation of the progression of individual student's pre, during, and post perceived of ability for college success scores.

Table 7

Sign Test and Indices of Effect Size for Perceived Ability of College Success Paired Samples

	n			Proportional Difference		
Perceived Ability	(+)	(-)	Ties	(+)	(-)	*p* (2-tailed)
Pre - During	2	2	0	.50	.50	1.000
During - Post	3	1	0	.75	.25	.625
Pre - Post	2	1	1	.67	.33	1.000

Principle question three. To determine if implementation of a support network and direct services for developing critical self-determination skills will increase the *level of persistence regarding perceptions of college performance* of university students with a learning disability or attention deficit disorder.

Table 8 lists student perceived academic persistence group means and standard deviations. Perceived academic persistence ranges on a scale of one being the lowest to six being the highest. Group means indicate an overall increase in perceived academic persistence from pre to during and again from during to post.

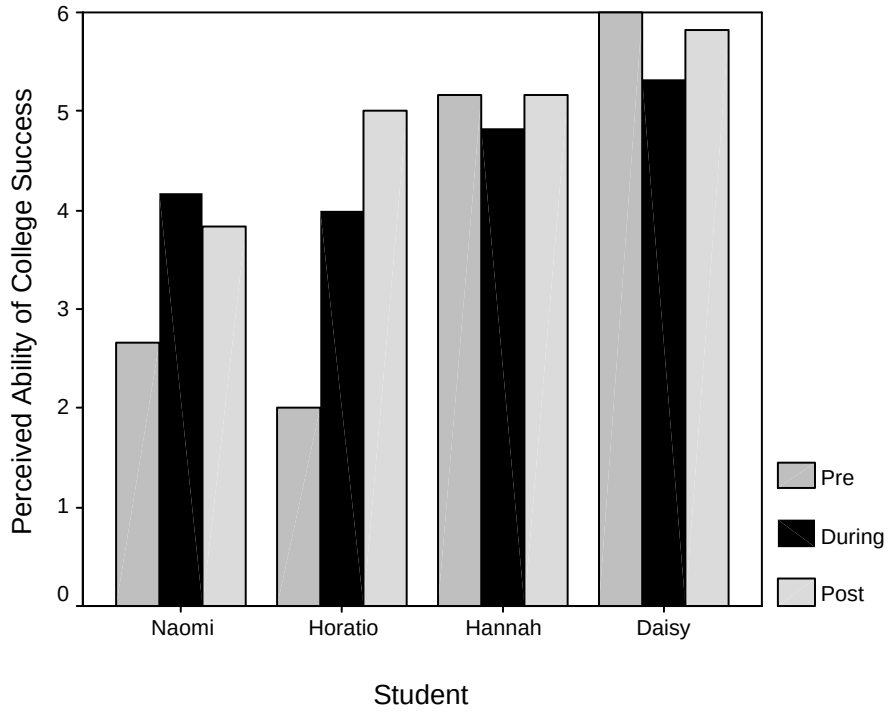

Figure 4. Individual student pre, during, post perceived ability of college success.

Table 8

Descriptive Statistics for Perceived Academic Persistence

Academic Persistence	*N*	*M*	*SD*
Pre	4	3.67	1.10
During	4	3.96	.64
Post	4	4.43	.70

Table 9 presents results of the comparison of student perceived academic persistence using a two-tailed sign test. Student pre to during scores indicated increases in two of the four student's perceived academic persistence scores. Three out of the four students showed increases in their during to post scores and their pre to post scores. Naomi and Daisy gained small increases of 11 and 13%, where Horatio had a moderate increase of 48% between pre and post scores. Hannah had a slight decrease of 4%

between pre and post measures. No significant differences were found in the pre-during (p = 1.000), during-post (p = .250), and pre-post scores (p = .625) when calculated using the exact binomial. Figure 4 depicts a visual representation of individual student's pre, during, and post perceived academic persistence scores.

Table 9

Sign Test and Indices of Effect Size for Perceived Academic Persistence Paired Samples

	n			Proportional Difference		
Academic Persistence	(+)	(-)	Ties	(+)	(-)	*p* (2-tailed)
Pre - During	2	1	1	.50	.25	1.000
During - Post	3	0	1	.75	.00	.250
Pre - Post	3	1	0	.75	.25	.625

Principle question four. To determine if implementation of a support network and direct services for developing critical self-determination skills will increase the *level of self-efficacy regarding perceptions of personal disability* of university students with a learning disability or attention deficit disorder.

Table 10. shows group means and standard deviations for student disability self-efficacy scores. Disability self-efficacy scores fall with a range of a low of one to a high of six. Overall means indicate an increase in student disability self-efficacy from pre to during and again from during to post.

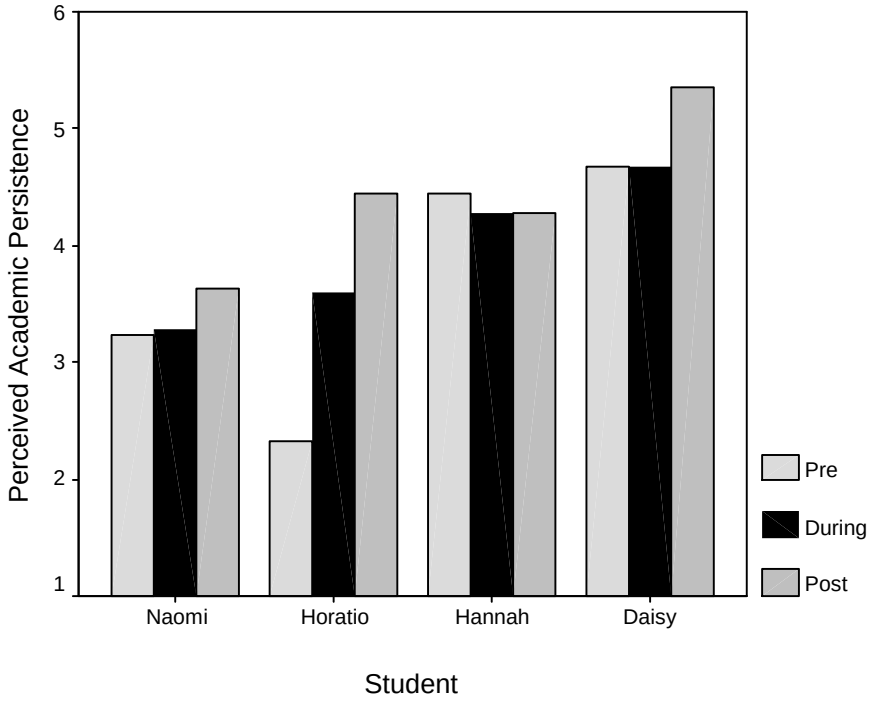

Figure 5. Individual student pre, during, post perceived academic persistence.

Table 10

Descriptive Statistics for Disability Self-Efficacy

Self-Efficacy	*N*	*M*	*SD*
Pre	4	4.36	1.23
During	4	5.10	.74
Post	4	5.14	.87

Results of the two-tailed sign test are provided in Table 11. Three out of four students indicated a positive increase in disability self-efficacy between the pre and during measure. During to post scores showed an increase for two of the four students. Three of the four students had an increase in pre to post scores. Increases occurred for Naomi (14%), Horatio (31%), and Daisy (20%). Hannah had no change between pre and post scores. The exact binomial sign test noted no significant differences in student pre-

during (p = .625), during-post (p = 1.000), and pre-post scores (p = .250). Figure 5 depicts a visual representation of individual student's pre, during, and post disability self-efficacy scores.

Table 11

Sign Test and Indices of Effect Size for Disability Self-Efficacy

	n			Proportional Difference		
Self-Efficacy	(+)	(-)	Ties	(+)	(-)	*p* (2-tailed)
Pre - During	3	1	0	.75	.25	.625
During - Post	2	1	1	.50	.25	1.000
Pre - Post	3	0	1	.75	.00	.250

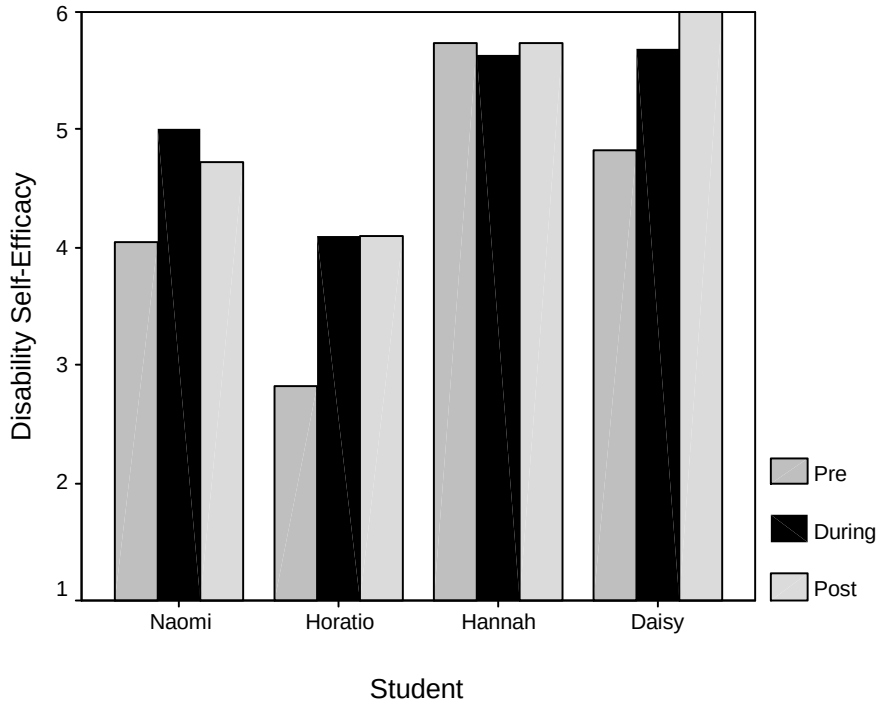

Figure 6. Individual student pre, during, post disability self-efficacy.

Principle question five. To determine if implementation of a support network and direct services for developing critical self-determination skills will *increase the study behavior percentile scores* of university students with a learning disability or attention deficit disorder.

Due to the time frame in which students were able to complete the *Study Behavior Inventory* (*SBI*), I only obtained one data set of scores for students. Table 12 indicates the dates in which all students, including the two who did not complete the project, took the *SBI*. Percentile scores are provided for the students who were able to complete the inventory. As a percentile, score student scores fell within a range of 0 to 100. *SBI* results were used as a tool to support the development of accommodation plans for each student in Lesson Seven.

Table 12

Student *Study Behavior Inventory* Percentile Scores and Completion Dates

Student	Date Completed	Academic Confidence	Short –Term Study Habits	Long –Term Study Habits	Total Score
Naomi	12/3/03	7	11	10	2
Horatio	4/1/04	95	4	33	37
Hannah	1/28/04	17	30	33	19
Daisy	4/20/04	34	14	4	14
Syx[a]	-	-	-	-	-
Jack[a]	11/18/03	90	18	61	56

a. Participants did not complete the project.

Emergent Research Questions

Emergent question one. To determine student perceptions of factors that negatively impacted their participation in the LEAD project.

Through the qualitative analysis of the participants' interview data an awareness of factors negatively influencing student participation in the LEAD project emerged. Table 13 provides an outline of identified themes and subthemes. Included in Table 13 is an accounting of students who identified with each theme, an "X" represents the frequency with which the student mentioned the theme. At least two of the four students identified factors associated with the themes of time management and personal investment. One student mentioned personally recognizing the need for support. The following is a description of each identified theme and subthemes through direct quotes from participant interviews.

Time management, the most prevalent theme mentioned by students encompassed three subthemes: not enough time, management of schedule, and feeling overwhelmed with obligations. The following quotes from students represent the subtheme of not enough time.

> Hannah: "Sometimes not being able to fit it all into my schedule, or you know or even taking the time to fit it into my schedule. . . . Time. Just time, schedules and coming and meeting. "
>
> Daisy: "This semester I don't feel like I've been able to participate as much as I have in the past due to my class schedule, but I feel pretty good with that . . . I would say it was definitely class and work conflicts. . . . It just wasn't enough time for anything this semester."

The following quote from Horatio represents the subtheme of management of schedule.

> Horatio: "I missed a lot of the meetings originally. . . . Sometimes it would be

because I didn't write it down. I think that's almost always the reason or I didn't set my alarm or something. . . . So that's really the only reason and towards the end I started to write them down and set alarms and calendars and stuff like that so it worked out. ”

The following quote from Hannah represents the subtheme of overwhelmed with obligations.

Hannah: “. . . just being overwhelmed by everything. Like at the very beginning of like last semester, whenever we started it at first.”

Students identified the theme of personal investment through the following two quotes.

Naomi: “I think I could have tried a little bit harder on some of the things. Like the book that you had given me and I plan on reading it and still finishing it but I haven't yet. . . . Just things like that. I think I could have tried a little bit harder in putting more effort into it. That's not to say I didn't get anything out of it. I actually really enjoyed it. I actually think I got quite a bit out of it. It's just a matter of putting it into action.”

Hannah: “It was mainly her (Hannah’s mom) encouraging me to do it. Because you know she was like it’s this research project and I was thinking I was going to be like a guinea pig or something else and I was like I don’t know about that, but she was like I really think it would be good for you and you know. . . . also just being tired and not wanting to get up and come and when we had it later at night or whatever. . . . Knowing that it was kind of volunteer also, it was kind of like, well, you know if I go I go and if not, you know.”

One student mentioned the issue of recognizing the need for support.

Naomi: “I think a lot of it had to do with me actually telling myself that I have a problem. Like I use to always just wish that I could be like everybody else and be able to do stuff easily and it's really annoying and I know that in order to make myself understand and do better with what I've got, I have to try to better understand it and stuff like that and I think it's just a matter of putting that extra step forward and saying okay, this is what I need to do and sometimes I don't want to do it because I don't want to admit to myself that I have a problem I guess.”

Table 13

Emergent Question One Themes and Subthemes

		Student Identification			
Theme	Subtheme	Naomi	Horatio	Hannah	Daisy
1. Time Management (3/4)[a]	a. Not Enough Time (2/3)[b]			XX	XXX
	b. Management of Schedule (1/3)[b]		XXX		
	c. Feeling Overwhelmed with Obligations (1/3)[b]			X	
2. Lack of Personal Investment in the Project (2/4)[a]		X		XX	
3. Recognizing a Need for Support (1/4)[a]		X			

a. (Total Who Identified Theme / Total Participants)
b. (Total Who Identified Subtheme / Total Who Identified Theme)

Emergent question two. To determine student's perceptions of LEAD project participation benefits.

A qualitative analysis of student interviews identified factors students perceived as benefits from participating in the LEAD project. Benefits identified by students can be categorized into two predominant themes: self-determination skills, and support systems. Students strongly supported both themes. Table 14 provides an outline of identified themes and subthemes. In Table 14, the frequency with which each student recognized the theme is represented with an "X." The following is a description of each identified theme and subtheme through direct quotes from participant interviews.

Self-determination, the first predominant theme, encompassed six subthemes. All four students mentioned having benefited from the planning strategy. Three out of four students recognized the subthemes of self-awareness of strengths and challenges, and goal attainment strategy as benefits of LEAD project participation. Two out of four students felt they gained disability awareness and persistence. One student mentioned her ability to advocate for herself. The following quotes from students represent the subtheme of self-awareness of strengths and challenges.

> Naomi: "I think maybe I didn't use to know what my strengths and weaknesses were. . . . But I mean I know, I know it's important to me and sometimes I think, maybe it's been brought to me more clearly."
>
> Hannah: "You had us point out a lot of strengths also instead of just finding out what was wrong with me. That was good. . . . I feel like I know what I need to do. I don't know if I always do it, but I know what I need to do and I know what not . . . I know that it takes me a lot longer to do things than it does for other people. In classes like Marketing where it's completely foreign to me and I care

absolutely nothing for it. Like everyone in there is you know oh, it's fascinating to them and I think it's so incredibly boring I'd rather like count cans than being in this class, it's so boring. But I know that I have to study for it and what I need to do and I know that obviously if they like it they're going to be absorbing it in a whole lot better than I am."

Daisy: ". . . understanding my strengths and weaknesses more and I pretty much knew kind of what my disability was but didn't really understand a lot of my strengths and weaknesses quite as much, so that was probably the biggest thing. . . I think that last thing that we did about my weaknesses and strengths about the time management and everything, I will definitely use a lot more and have kind of started to use. . . . I definitely feel like it kind of showed me some of my weaknesses and strengths and what I need to work on. . . . definitely about the knowing what my strengths are and weaknesses."

The following quotes from students represent the subtheme of planning strategy.

Naomi: "Plan, planning I don't feel confident in that, I'm not very good at it but I have the material now."

Horatio: "I use the calendar stuff pretty heavily now. I have always had opportunities to use the calendar stuff, but I use it a lot heavier now, a lot more heavier than I use to, more details. I have one on my computer that I can set alarms to send a text message to my phone or make music play or something like that. But, I use that a lot . . . Yeah, because they have already started to work. I mean I use calendars all the time. I go to all of my classes now. I know when tests

are coming. I know when papers are due or anything like that and then that goal thing, I used it when I studied for my last tests and did well."

Hannah: "Probably, planning out like saying what I need to do on this day, and like when we went through the calendar things. Like I've got, I already wrote down everything that I had, but being able to go through and see that I've got it this day or whatever and then like kind of a couple of days before I'll be like study for this or study for this or work on this. And so when I'm looking at it like if it's one week and I don't have it and it's not due until the next week and so I don't see it on the other page I've got it in there study for it. So I go, oh yeah okay I need to do that, so I guess just writing down everything that I need to do. You know where I make sure I remember to study for things that don't surprise me later on."

Daisy: "Somewhat try to plan ahead. I do procrastinate a lot."

The following quotes from students represent the subtheme of goal attainment strategy.

Naomi: "One of the strategies that I liked was the goal. Writing out the goal and I'm going to keep that sheet and like rewrite over it. I probably won't like copy that sheet but probably like write down everything on a piece of paper and then just go through the steps every time. I think that's a great idea. Why not do that with the goals. It's going to help you to do it. Going to help you get through the goal. Stuff like that I'll use again."

Horatio: "I always think I'll probably use that goal stuff. That sheet that we used because I think it's cool that it breaks it down and even though I don't always know what to write in the boxes for all of them like strategy and stuff like that, I

still think after you fill it out and look at it and then after you are done it helps both ways. I mean if you did it right and stuff like that. Last week I got one of those blank sheets from you and probably photocopy it and use it. I probably won't use it on everything but I'm sure I'll use it on big stuff or projects."

Daisy: ". . . the plan, about setting goals. I'm pretty bad about that so it's kind of anything could definitely, any improvement is definitely some."

The following quotes from Hannah represents the subtheme of self-advocacy.

Hannah: ". . . decide that now that I need something else, I could probably go back and you know argue with them a little bit and get more of what I think I need. . . . She's just tough. She's a really tough teacher and she's a tough grader and not a very personable woman I guess. I kind of talked to her a little bit, before you know just about I guess even when I was like dropping the class, just talking to her, and she was just like oh, okay. . . . (INTERVIEWER: Are you going to talk to her about it next semester?) Yeah. For sure . . . Yeah, I don't always expect her to understand completely or whatever, but I know I can get this, so I will and you know whether she likes it or not."

The following quotes from students represent the subtheme of persistence.

Horatio: "Just made me see that just because you have, just because I have some sort of disability doesn't mean that you just give up. You have to work around them."

Hannah: "I'll just do it. You know, just suck it up and do it."

The following quotes from students represent the subtheme of disability awareness.

Naomi: “I think I learned a lot about me I guess and how my learning disabilities and the stuff that I've been through can effect how I'll do because I might just tell myself that it doesn't matter . . . Well, I see myself going back and thinking well, what did they say? You know. How can I better deal with this. You know there's just a lot of things that I think people don't understand about learning disabilities, a lot of things. And there's some people that don't even think that learning disabilities are actual real and it kind of offends people that actually have them. But I think that it helps me not just like to better deal with them, like my learning disabilities to better understand them and stuff, but to better be able to work with them. You know. Like to use them as my strengths and not my weakness, you know. . . . And I'm not getting rid of that book.”

Horatio: “Probably learning about, when I first got diagnosed with all that stuff - learning disabilities and stuff like that I still didn't take it too seriously, but then we got that binder with all the stuff in it and the book, I have not read all of the book but I have read some parts of it. But it's becoming more and more apparent to me about how serious it is and needs to be taken seriously and that the university takes it seriously too so that was good to see. Because I have always heard about, when you see all of the paperwork and all that stuff. That's kind of encouraging I guess that it's taken seriously.”

In addressing the second predominant theme related to support systems, all student participants relayed having benefited from the support system offered by the LEAD project. Among the three types of supports mention all four benefited from the individualized personal attention and camaraderie with group members who had similar experiences. While students benefited from and enjoyed both experiences they mentioned

preferring the individual meetings. In addition, one student mentioned benefiting from the awareness of accommodations available with the university disability support services office.

The following quotes from students represent the subtheme of individualized personal attention.

> Naomi: “I liked them both, I probably got more out of it in the individual meetings, because I'm more likely to say things that I wouldn't say in a group meeting and so I probably got more out of it when I was just with one person. But also in a group meeting, it's not that I didn't like those. I liked those too, but there it's like you are learning more about you know other people like you and when you are in an individual group meeting it's like you are learning about you.”
>
> Horatio: “Probably the individual. . . . the individual ones it's easier to work. That is just me. Some people are better in groups, I did pretty good I think in the individual stuff.”
>
> Hannah: “I do better in one-on-one things I know, because I have to pay attention, because it’s really obvious if I’m doodling on my paper while you’re talking.”
>
> Daisy: “The individual is more one on one so it was more personal.”

The following quotes from students represent the subtheme of camaraderie from others with similar experiences.

> Naomi: “It helped to see that I had some similarities that other people like that's funny because we'd all be like no, I hate that and we'd be like yeah. I know there's other people out there that have learning disabilities but it was cool to have a group meeting and seeing other people having fun with the fact that we are similar and you know. I don't know, it was fun.”

Horatio: “You know the group things are kind of fun because everybody was there. . . . Even though I know there's plenty of people out there and obviously the project doesn't represent everybody on campus that has it, has some sort of disability. It was so cool to actually meet face to face and hear what other people are struggling with and stuff like that.”

Hannah: “. . . you know we’re all normal people and we see them, it’s not like we’ve got a sign that says I’ve got learning disabilities you know so you don’t really know who else you can kind of relate too. . . I see him (Horatio) sometimes and you know I’ve talked to him a couple of times you know it’s just I would have never known him, just riding down the elevator or something with him you know.”

Daisy: “But the group was nice to be able to hear other people's responses.”

The following quote from Hannah represents the subtheme of knowledge of available accommodations.

Hannah: “I guess knowing what kind of accommodations you can get, because the Office of Disabilities doesn’t really, they won’t really tell you exactly everything that you can get. They just tell you, they read over your stuff and they tell what they think you need. But they don’t tell you everything that you can get. I guess finding out all the stuff that you can get. And so you know actually knowing that you have those choices you can fight more to get those and stuff. Because, they didn’t tell me everything that I could have. And so, I’m just kind of well, okay this is fine, you know.”

Emergent question three. To determine student recommendations for future project procedures and activities.

Results of the qualitative analysis presented student recommendations that can be grouped into two categories based on their relationship to project procedures. The first category represents recommendations that would occur prior to the beginning of the project. The second category included recommendations that would occur during the progression of the project. Table 15 provides an outline of identified recommendations by student. The frequency of each recommendation mentioned is accounted for by each "X." While students were able to identify recommendations, they initially were not sure if anything could have been done differently. The following is a description of each identified recommendation through direct quotes from participant interviews.

Students made two recommendations that should occur prior to the beginning of the project. The most predominant recommendation made by all four students was the need to have an overview of the project activities. Three of the four students recommended methods advertising the project to increase participation. The following quotes from students represent the recommendation of addressing an overview of the project.

Table 14

Emergent Question Two Themes and Subthemes

Theme	Subtheme	Student Identification			
		Naomi	Horatio	Hannah	Daisy
1. Self-Determination Skills (4/4) [a]	a. Planning Strategy (4/4) [b]	X	XX	X	X
	b. Self-awareness of Strengths and Challenges (3/4) [b]	X		XXX	XXX
	c. Goal Attainment Strategy (3/4) [b]	X	X		X
	d. Disability Awareness (2/4) [b]	XXX	X		
	e. Persistence (2/4) [b]		X	X	
	f. Self-Advocacy (1/4) [b]			XX	
2. Support Systems (4/4) [a]	a. Individualized Personal Attention (4/4) [b]	X	X	X	X
	b. Camaraderie from Others with Similar Experiences (4/4) [b]	X	XX	X	X
	c. Knowledge of Available Accommodations (1/4) [b]			X	

a. (Total Who Identified Theme / Total Participants)
b. (Total Who Identified Subtheme / Total Who Identified Theme)

Naomi: “I think when I first came into it, I was a little bit confused as to what was going to come out of it, what the purpose of it was . . . Maybe the first meeting and I don't remember the first meeting very well so this might have happened a

little bit, but I'm just going to say this. But maybe like an outline of some sort to say that we are going to check out or we are going to do some activities of some basic stuff. We are going to see, or analyze a goal or something. And we'll tell you the main reasons of why, we'll get more in detail of that later but basically that's what we are going to do and just give a couple of ideas of what's going to go on and we'll have like meetings with you guys, like group meetings and individuals meetings and we hope that you get enough out of both of them and I don't know, like when I was there. I didn't, you probably asked if anybody had any questions or anything like that, and I just didn't know what to ask. I'm just over all, I understand what it's about."

Horatio: "I guess I didn't actually know what to expect coming into it."

Hannah: "I didn't really know. What my mom actually told me was just to kind of get a better understanding of what the (I guess pretty much what we did) like get a better understanding of what the problem was and so I would know how to (you know) know what I needed."

Daisy: "I didn't know enough to have any expectations towards the project."

The following quotes from students represent the recommendation of advertising the project.

Naomi: "Well, this is going to sound kind of cheesy, but everybody does the stupid chalks on the ground and I really think that that's one of the ways that people are going to be able to see it. Because I mean when I get those mass e-mails from OU, I kind of look at the heading on it you know, and I kind of think about how it's not related to me if it's like *Miss Asian OU* or something. Well, I'm

not Asian, so I just delete it . . . I don't know, I think if you just say like on the subject line if you say you know, LEAD or something similar they are going to be like what the heck? What? But if you were like in big letters *Do you have learning disabilities? We can help* or something like that and then like exclamation points then somebody might be like Oh, what is this. I don't know, I didn't get the mass e-mail so I don't know what it said. But I just don't , yeah, everybody probably gets that or most everybody but it's a matter of them looking at it and still there's probably a lot of people out there that are not going to want to do anything about it. Like I'm fine, I have okay grades, I'm fine with it and maybe that's okay for them but I didn't have fine grades so."

Horatio: "May be if you have another one of these you can make trendy posters or something like that and put them around campus. . . . Maybe set up a really cool web site or something like that with information on it. . . . I think maybe like message board. But you just have to make sure it looks cool. That's the thing. Because when kids see the text. When you send them one of those web sites that's like oh, another crimson colored web site with lots of words on it. If you get something to suck them in and maybe get them interested in learning more about their learnig disabilities and how they could succeed than that might help."

Hannah: ". . . Tell the Office of Disabilities about it and just suggest."

Students made five recommendations for changes or additions to occur during the course of the project: make the project a course, have more opportunities to socialize, have more individual meetings, use an off campus location, and include campus orientation. With each of the five recommendations mentioned by only one student, one predominant recommendation was not identified to occur during the course of the project. However,

the awareness of student concerns provides valuable insight. The following quotes from students represent the individual recommendations made by students.

> Hannah: “Yeah. Knowing that it was kind of volunteer also, it was kind of like, well, you know if I go I go and if not, you know. Yeah, probably a course would be graded on attendance. . . . Because when you‘re registered in there (Office of Disability Services), you’re supposed to go talk to your advisor and do all that stuff. And then you’re supposed to take your schedule to the Office of Disabilities and then I talked to them about this thing. . . . I guess just that more of a required course. I think, because when I see *required* on something I’m like okay I really have to do this. I mean it wasn’t always that, I just didn’t feel like getting up, or feel like you know whatever, but I know that was the case sometimes. It was just I just didn’t want to go anywhere else today.”
>
> Naomi: “I think maybe if we had gotten a little bit more time with the group or at least me. If we'd like play some sort of games where we'd really, really got to know the people in the group and a lot of us had different schedules so it was really hard for us to all be there and then after this was over, we could still hang out with them and be like yeah, you know. Something where we could do more group stuff and have fun with it and you know stuff like that and maybe even asking them what they do like whenever they are having a hard time doing something, what they do to help them. Stuff like that.”
>
> Daisy: “Individuals were easier to meet and with my time schedule between school and work it was hard to meet with the group but it didn't bother me meeting with the group or individuals, it didn't bother me either way.”

Table 15

Emergent Question Three Categories and Recommendations

Categories	Recommendations	Student Identification			
		Naomi	Horatio	Hannah	Daisy
1. Prior to Beginning the Project (4/4)[a]	a. Overview of the Project (4/4)[b]	XX	X	X	X
	b. Advertise the Project (3/4)[b]	X	X	X	
2. During the Project (3/4)[a]	a. Make the Project a Course (1/4)[b]			XXX	
	b. More Opportunities to Socialize with Group Members (1/4)[b]	X			
	c. More Individual Meetings (1/4)[b]				X
	d. Off Campus Location (1/4)[b]				X
	e. Include Campus Orientation Information (1/4)[b]				X

a. (Total Who Identified Theme / Total Participants)
b. (Total Who Identified Subtheme / Total Who Identified Theme)

Daisy: “Make it at an easier location. Sometimes this room or this location there's not an easy parking place on either side. Something off campus where you wouldn't have to fight traffic or parking might be a little easier to deal with than having to pay or throughout the semester actually finding parking and some people don't have parking passes to do that.”

Daisy: “Maybe more about, hmm, I don't know. I'm trying to think of something like about OU and how, because there's not really this is how you go about doing stuff so may be kind of a if it is going to be more for freshman, you know, this is,

which I guess they have an orientation but I didn't go to that because I didn't come in as a freshman.”

CHAPTER FIVE

Discussion

Sustaining the successful pursuit of opportunities and knowledge for students with disabilities requires providing supports beyond the typical academic accommodations. Equal access to postsecondary education should include developing support systems, and providing strategy and self-determination instruction specific to the individual needs of students with disabilities. The results of this study provide implications for the development and implementation of support networks that include self-determination instruction for students with learning disabilities and/or attention deficit disorder in a university setting.

While not all students who attend postsecondary educational programs graduate, the concern in this case is that fewer students with disabilities are completing these programs than their non-disabled peers (Horn, et al., 1999; Murray, et al., 2000). This concern leads to the initial posing of two questions (1) Why do fewer students with disabilities complete postsecondary education programs when compared to their non-disabled peers, and (2) What can educators do to increase the number of students with disabilities completing postsecondary education?

In support of question one, a review of research involving students with disabilities established the need for support systems that teach self-determination skills to increase student likelihood of postsecondary education success (Lehman, Davies, Laurin, 2000; Nelson, Smith, Appleton, & Raver, 1993; Peterson, & Van Dycke, 2004; Reis, Neu, & McGuire, 1997; Spekman, Goldberg, & Herman, 1992). I used the results of these studies to develop a research project in an attempt to address question two. I planned to implement a support network and self-determination instruction for college

students with learning disabilities and/or attention deficit disorder. In support of this goal, I initially sought to study if implementation of a support network and direct services for developing critical self-determination skills with university students with learning disabilities and/or attention deficit disorders would increase their:

(1) level of self-determination,

(2) level of self-efficacy regarding perceptions of college performance,

(3) level of persistence regarding perceptions of college performance,

(4) level of self-efficacy regarding perceptions of personal disability, and

(5) study behavior percentile scores.

Inconsistencies in student participation resulted in a need for additional inquiry to determine the factors impacting student participation, perceptions of project benefits, and suggestions for improving the project. In this chapter, I will present the discussion of the case study results of this project. I will address the major outcomes of the case study according to three categories that match the three emergent research questions; project challenges, project benefits, and student recommendations. I will include a discussion related to the principle research questions within these three categories.

Study Outcomes

Project Challenges

Students reported time management issues to be the primary problem effecting participation. Issues of time management encompassed the limited quantity of available time, feelings of being overwhelmed, and the management of schedules. Knowing how to meet these challenges for students are some of the few characteristics Reis et al. (1997) identified as supporting the success of high-ability postsecondary students with learning disabilities. Among their findings, Reis et al. reported the need for students to utilize

planning techniques and prioritizing. University life itself presents inherent demands on students' time. For students with disabilities these time demands can be greater than their nondisabled peers (Vogel, 1987). While this project could not reduce the academic demands placed on the students, it addressed activities of planning and personal time management. Inconsistencies in student attendance at project meetings did not provide an ideal opportunity for them to study or practice strategies, however students did report benefiting from planning techniques. While students benefited from project strategies, the issue that remains is how to support students in acquiring time management skills when they cannot manage their time in order to attend the project. In addition, if students are unable to manage their time effectively, increasing their commitments by participating in a support project will only add to their feelings of being overwhelmed.

Two students reported a secondary concern regarding personal investment in project activities. Lack of personal investment in the project appeared in two ways, students felt they could have given the project more effort and one mentioned having been encouraged by someone else to participate in the project. Student lack of personal investment signifies concerns with student motivation for participating in the project (Maehr, 1984). I cannot clearly determine the reasons for lack of motivation in giving little personal effort to the project. However, it is apparent in the case of being encouraged to participate by another person, that the student's goal for project participation was extrinsically driven. Developing student intrinsic or internally regulated extrinsic motivation for project participation may play a key role in increasing student participation.

Project Benefits

The principle research questions from this study did not find statistically significant differences in pre, during, and post measures. Perhaps more importantly, indices of effect size indicated meaningful increases in students' pre to post self-determination, perceptions of college performance, academic persistence, and perceptions of personal disability. Due to design limitations, I cannot isolate implementation of project activities as the single source of influence to the increases in student scores. While these results alone lack causal attributes, the qualitative interview data and researcher perspective profile data validate practical findings. Themes clearly showed the benefits of self-determination skills and the LEAD support systems.

Self-determination. Comparing student pre, during, and post scores to student reflections of academic beliefs at the time the measures were completed raises several questions regarding the relationship between self-determination and environmental influences. In the Field and Hoffman *Model for Self-Determination* (1994), which I used to guide the projects instructional activities, the environment represents an influencing factor. A visual analysis of student data over the course of the project shows a fluctuation in scores similar to students' negative and positive feelings towards events occurring in their academic environment. This poses several questions: (1) Is there a relationship between students' academic behaviors, academic outcomes, and self-determination, (2) What is the relationship between students' academic behaviors, academic outcomes, and self-determination, (3) Does self-determination fluctuate over time or is it stable, and (4) What factors influence the stability or influence the fluctuation of self-determination? Existing research suggests a positive relationship between self-determination and academic success (Houchins, 1998; Sarver, 2000). Houchins (1998) found that students reading and math scores predicted self-determination. Sarver (2000) reported the

relationship between student self-determination and GPA. In considering these findings, does self-determination influence academic performance, or does academic performance influence self-determination, and do they continue a pattern of affecting each other? Additional research is necessary to further examine these issues.

Knowledge related to self-determination skills reported by more than half of the participants included planning techniques, self-awareness of strengths and challenges, disability awareness, goal attainment techniques, and persistence. These findings are supported by the meaningful increase in student self-determination scores from the pre-post measures. All students reported benefiting from planning strategies presented in project activities. Issues of time management and planning appeared to be of significant concern for students. This may have increased the significance of planning strategies to the students.

In evaluating student interview transcripts for themes related to project benefit, the most frequently mentioned items related to knowledge of self. I chose to separate these comments into two separate themes; self-awareness of strengths and challenges, and disability awareness. Understanding characteristics of one's disability in relationship to performance is an additional factor impacting the success of students with disabilities (Nelson, et al., 1993; Spekman, et al., 1992). Three of the four students indicated gaining knowledge of their strengths and challenges from the project, where only two students reported disability awareness. Knowledge of personal strengths and challenges is self-awareness and important for all students. While only two students reported disability awareness, the project intended for students to gain an understanding of their disability. Disability awareness is a critical component of success for students with disability (Sarver, 2000).

A majority of students indicated the usefulness of the *Take Action* (Martin, et al., 1999) goal attainment strategy. Similar to the findings by German et al. (2000) and Walden (2002), students reported the effectiveness of creating a plan for reaching a goal. The *Take Action* plan enhanced students' self-awareness by evaluating effective and ineffective plan components.

Evidence of persistence reported by students formed from the knowledge they gained through self-awareness of strengths and challenges, disability awareness, and availability of accommodations. Students persisted when they knew their personal boundaries and they knew the extent of services they could request. Becoming aware of the range of services along with the awareness of strengths and challenges supported their ability to act in a self-determined manner.

Support systems. Through the implementation of individual and group meetings, project mentors, and social events, I intended to offer students a support system to develop their interpersonal relationships within the postsecondary community. Students reported benefits from both the individual and group meetings. Students indicated gaining more information through individual meetings, which were specific to their personal needs, and they also reported valuing the camaraderie of the group meetings. It was initially difficult for students to be open about their disabilities in a group setting, but shared experiences became a common bond. Several students talked about seeing other project members on campus or in class. This expanded their sense of belonging to the university community.

Student Recommendations

I asked students during the exit interview to make recommendations on how to improve the project. Their recommendations addresses pre-meeting components and changes that could improve the LEAD project itself.

Prior to beginning the project. Students made two suggestions to do before the project starts. First, all of the students indicated that an overview of the project activities would have helped them gain a better understanding of the project expectations. Students did receive an overview of project activities, including a printed copy, during the first project meeting. However, their recommendation strongly suggests that the overview provided to them was inadequate. Possibly students would have benefited from repeated exposure to an overview of activities, particularly during the second meeting.

The second recommendation they made related to advertising the project. Students suggested creating a website, using flyers, and sidewalk signs to get other students involved. Students mentioned that university mass emails, the primary recruitment method used for this project, are often ignored. One student suggested the university disability support services office recommend the project to students. The university's disability support service office was involved in distributing the mass email to students who have registered with their office, but did not personally recommend the project to students. A personal recommendation from the university's disability support office may have been more effective than using the mass email.

During the project. Individual students made several suggestions to improve the project. Although multiple students did not have similar recommendations, it is important to consider all suggestions and students unique perspectives of participation.

Hannah, who did not participate in the project for course credit, recommended scheduling the project as a required course. Data from Naomi and Horatio, who

participated in the project for academic credit, provided credibility to this suggestion. When asked to prioritize the project in relation to their daily activities Naomi and Horatio made the following statements:

> Naomi: “I would say I'd put it in the same importance as like being a big difference for my future. Like going to class, yeah that's important too. But I don't know, maybe this is even more important than that. Like let's see, making sure that you have the right major kind of importance. Because the major is going to, it's really going to affect the rest of your life and this will too because I mean it will help me.”
>
> Horatio: “Probably with my other classes, I mean all of my other class work.”

It is important to note that even though Naomi and Horatio thought highly of participation in the project, it did not make a difference in their attendance until they were informed of their below average grades for the course at midterm. In contrast, Hannah and Daisy who did not participate for course credit placed the project on their list as a low priority. While, I do not intend to suggest that the project have the same importance as a student’s course work, priority level may signify commitment to the project.

Daisy, the only student who lived off campus, recommended having the meetings in an off campus location due to parking difficulties. The students who lived on campus indicated the location of the meetings were convenient to classes and the dorms. As a transfer student, Daisy also mentioned including campus orientation information in the project meetings.

Additional recommendations included providing more opportunities to socialize as a group and more individual meetings. In the design of the project, opportunities to socialize as a group held a significant role. However, the challenge of student schedules

reduced the frequency of social activities. Recommending additional individual meetings reflects of the student's enjoyment of the personal attention gained in individual meetings.

Limitations

Generalization and magnitude of results are limited by several factors relating to participant characteristics, methodology, and researcher bias.

Participant Characteristics

The students involved in the study were not a random sample of individuals with learning disabilities and/or attention deficit disorder at the university. Therefore, results of the study cannot be generalized beyond these particular students. Participants possessed a uniqueness in that they volunteered or were encouraged by an outside source to take part in the project activities. Students did not verbally identify a common reason for their participation.

Specific characteristics of the sample's history pose a threat to the study results. Students received additional supports from private practitioners, counselors, disability services, extra curricular activities, and familial systems. Due to the influence of these supports, I am unable to determine if the intervention provided by this project was the sole factor in producing the results obtained. I included information relating to the supports each student received in the student profiles.

Methodology

Quantitative analysis procedures used to determine the results of the principle research questions lacked strength. Small sample size posed threats to external validity and significance of results. This study's lack of a randomized large sample size decreases the likelihood of reporting significant results and increased the likelihood of *Type II* error.

The use of non-parametric sign test did not report a statistical measure of effect size. However, the sign test does provide a proportional measure of the difference between the number of positive changes between the paired scores and the number of negative changes. The proportion of positive changes to negative changes provides an indication of the practical effects of the intervention. This study did find a moderate positive proportional change in students' self-determination skills.

Both the content validity and the construct validity of the *Self Confidence and Advocacy Scale* instrument were of concern due to minimal reliability data. While the study did not involve a large enough sample to conduct instrument content reliability and validity analysis, the use of multiple measures and theory based questionnaire items attempted to control for these limitations.

Researcher Bias

My dual role of project instructor and researcher limited and at the same time enhanced the study. Midway through the project I found it difficult to simultaneously maintain both roles. Occasionally, meeting the needs of students interfered with collecting multiple sources of data. This dual role did allow me to establish relationships with the students that created a comfortable environment for discussing sensitive information. However, the familiarity between the students and me caused several pieces of information to not be completely explained by students during the interview process, because I already knew about them. I have attempted to include these items in the student profiles. Observations and previous conversations with students support the truthfulness of student responses to the interview questions. I cannot discount the possibility that they may not have felt comfortable being honest with me about their feelings towards the project.

Intervention

Student schedules required project lessons to be presented on multiple occasions in small group or individual sessions. While the basic content of lessons did not change, students receiving instruction through individual meetings were exposed to more individualized discussions than those in the small group sessions. In addition, individual lessons often took less time than small group sessions. Inconsistencies in the delivery of lessons may have impacted the study results.

Implications

The value of this study lies in the lessons learned from providing a support system and self-determination instruction for university students with learning disabilities and/or attention deficit disorder. When discussing the progress of the project with a colleague, she commented "teaching self-determination skills to students in college is like teaching a drowning man how to swim. A drowning man needs a life raft. Swimming lessons need to come before the dive ever happens. Students need to be taught self-determination skills *before* they dive into college" (J. L. Van Dycke, Personal Communication April 16, 2004). This analogy proves true for the situation in which this project occurred. Four weeks into the project, half of the students were on academic probation and the other half withdrew from the classes in which they struggled. Students involved in the project needed the immediate support of a life raft in order to stay afloat long enough to learn how to swim in the ocean of postsecondary education. While the ideal situation would have students learning self-determination skills prior to transitioning to a postsecondary setting, it is not always the reality (Agran, et al., 1999; Wehmeyer, et al., 2000). This study attempted to provide a support system and teach self-determination skills to students in the middle of their efforts to stay afloat. While the study results lack

generalizability, the results present valuable insight into implications for providing supports to students with learning disabilities and/or attention deficit disorder at the university level. I asked the project participants to offer advice to other students. The advice presents a sample of the value of bringing students together to share experiences and mentor each other.

> Naomi: “The first thing I would say is basically don't just, don't just try to ignore your problem, don't just think that it's going to be okay, because like I learned that I had a totally different problem that I didn't even realize I had. The whole laziness thing, it's not all laziness and that's really going to help me I think in getting rid of that. . . . Just little things that people don't realize they are doing or they realize that it's wrong and knowing that they are learning or something. Yeah, it's definitely going to help if you get help or if you try to do something about it. There's so many things that people just ignore. . . . Definitely try to do something about it. Try to get help. Try to make it better, because if you just sit there and ignore it, it's not going to do anything different, you know. I mean for those that are already doing great and don't really have problems with it too much, I mean that's great. You know, but what if there's something there that you are missing, what if there's something there that you don't really know about. Even if it's just the fact that you are not enjoying college as much as you could be. Something as simple as that. These are the years, you know. Why not take advantage of it. I'm just learning that myself. I spent like this whole year, it just kind of blew by. I hate it.”
>
> Horatio: “Go to class. Always go to class. Everybody always says that and then

incoming freshman never listen. But really go to class. That's the single most important thing. Because even if you are there and you are brain dead, you're still going to hear something that you could recognize later or you find out about important dates or if they change something and it's not on the syllabus. Stuff like that. There's no replacement for going to class. You can go to class and not study and still at the freshman level do much better than if you didn't go to class and just read the book or something. Going to class is important."

Hannah: "Don't get behind. That's the hardest thing to do is catching up on things. I mean if you didn't really plan on it, like getting behind. Stay on top of things. Make sure you study enough for things, for your first test. And not get behind where you're having to learn it all. Cause you know when your final exam comes and it's over everything you've have to go back and learn the first chapters cause you obviously didn't learn it the first time. So it's hard to be working on what you're doing then and then trying to catch up still and just don't get behind on anything."

Daisy: "Find out what interests you and what drives you and what you really care about and somehow figure out how to do that because if you find that you have a passion for it or if it interest you than all the bad hard stuff isn't as bad because it's kind of entertaining and interesting and that's why it was so hard, why I was so confused at first because everything I took, and that's kind of what I did because I didn't know what I wanted to do, so I went to the community college and took a class here . . ."

Future Research

Concern for increasing the postsecondary graduation rate for students with learning disabilities requires an evaluation of supporting students' needs beyond the provision of academic accommodations. It is still unknown whether or not a project such as the one presented in this study will effectively increase the student retention and completion rates. However, findings presented here reveal the merit of offering a similar support project for students on university campuses. In the following statement, Horatio summarized his thoughts and concerns related to involvement in the project.

> Horatio: "It was pretty cool. I mean a lot of times we had, I think we had pizza a couple of times and we had drinks and stuff like that. That was cool. To get them involved I don't think you can really change anything because they are either, they are going to come or they are not going to come and there's going to be fewer that come than do come. That's just because I think a lot of people, that maybe when they are in high school, they think they need to put all of that stuff behind them. They think I'm 18 now that's not important anymore or I'll deal with it or something like that. It's important I think they do come and I don't really know how you could change it. I'm not really sure how you could change it. . . . That's really the only thing I could think of to get more people involved because with something like this, it's kind of a sensitive subject for a lot of people. So it can be difficult. . . . But over all I'd say there's not a lot you can do. It's going to be up to the kids to decide whether they want help with that or not."

While it is up to the students to make the decision to seek assistance, further investigation into factors associated with student's willingness to access supports and disclose their disability to postsecondary institutions is recommended. Results from such an investigation could enhance the delivery of instruction and the participation of

students in support projects similar to the one presented in this study. Prior to beginning a similar support project, it is necessary to gain a better understanding of the nature of self-determination in an academic environment by measuring the self-determination of successful and unsuccessful college students with and without disabilities over time.

Future support projects should attempt to address issues related to student participation identified in this study prior to implementation and further evaluate the effectiveness of self-determination instruction and the provision of support systems. Additional investigations into the impact of self-determination instruction and the provision of support systems on increasing the academic success of students with learning disabilities and/ or attention deficit disorder are necessary. Finally, it must not be forgotten that self-determination is a life long skill that students should begin learning prior to entering the postsecondary setting. Additional research is needed to address the implementation of self-determination instruction and the preparation of teachers to provide the instruction in the elementary and secondary grade levels.

Conclusions

The implementation of this project was based on the foundation of providing opportunities to individuals with learning disabilities and/ or attention deficit disorders that ultimately support their productive engagement in society. In a speech regarding the importance of education to the nation's economy, Greenspan (2004) said, "equal opportunity requires equal access to knowledge." While legislation does exist to support the equal access to education for individuals with disabilities, the types of accommodations and supports currently provided by many postsecondary institutions may not be sufficient. The students in this project struggled academically in their current

university setting, despite the efforts of three of the students to access supports from disability services.

This project attempted an innovative method of enhancing the traditional supports and accommodations provided to students in postsecondary settings by offering a support network and self-determination instruction. The results presented here not only provide suggestions for creating postsecondary learning opportunities, they offer insight into the challenges students with learning disabilities and/ or attention deficit disorder who are struggling academically face in the university environment. Over the course of the project, students' acquisition of self-determination skills supported the identification of their strengths and challenges, and strategies to address their challenges and validate their strengths. This awareness of skills has the potential to support the students' opportunity for engagement in postsecondary activities, enhance their ability to recognize and effectively adjust their behaviors, and ultimately increase their learning (Mithaug et al., 2003).

References

ACT. (2002/2003). *COMPASS/ ESL Version 3.2.* Iowa City, IA: ACT, Inc.

Agran, M., Blanchard, C., & Wehmeyer, M. L. (2000). Promoting transition goals and self-determination through student self-directed learning: The self-determined learning model of instruction. *Education and Training in Mental Retardation and Developmental Disabilities, 35*(4), 351-354.

Agran, M., Snow, K., & Swaner, J. (1999). Teacher perceptions of self-determination: Benefits, characteristics, strategies. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(3), 293-301.

Algozzine, B., Browder, D., Karvonen, M., Test, D. W., & Wood, W. M. (2001). Effects of interventions to promote self-determination for individuals with disabilities. *Review of Educational Research, 71*(2), 219-277.

Allen, S. K., Smith, A. C., Test, D. W., Flowers, C., & Wood, W. M. (2001). The effects of Self-Directed IEP on student participation in IEP meetings. *Career Development for Exceptional Individuals, 24*(2), 107-120.

Bliss, L. B., & Mueller, R. J. (1987). Assessing study behaviors of college students: Findings from a new instrument. *Journal of Developmental Education, 11*(2), 14-18. Retrieved December 3, 2003, from http://sbi4windows.com/html/r__d.html

Bliss, L.B. & Mueller, R.J. (1987). *The Study Behavior Inventory* (Version 2.0) [Computer software]. Torrance, CA: Andragogy Associates.

Bruno, D. G. (2000). The effects of a self-determination intervention on youth explanatory style and depressive features. *Dissertation Abstract International. 61*(10): 3904 (UMI No. 9992167)

Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions.* Thousand Oaks, CA: SAGE Publications.

Cross, T., Cooke, N. L., Wood, W. M., & Test, D. L. (1999). Comparison of the effects of MAPS and ChoiceMaker on student self-determination skills. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(4), 499-510.

Deci, E. L., & Chandler, C. L. (1986). The importance of motivation for the future of the LD field. *Journal of Learning Disabilities, 19*(10), 587-594.

Deci, E. L., & Ryan, R. M. (1994). Promoting self-determined education. *Scandinavian Journal of Educational Research, 38*(1), 3-14.

Deci, E. L., Vallerand, R. J., Pelletier, L. G., & Ryan, R. M. (1991). Motivation and education: The self-determination perspective. *Educational Psychologist, 26*(3&4), 325-346.

Doll, B., Sands, D. J., Wehmeyer, M. L., & Palmer, S. (1996). Promoting the development and acquisition of self-determined behavior. In D. Sands, & M. L. Wehmeyer (Eds.), *Self-determination across the life span: Independence and choice for people with disabilities* (pp.65-90).

Eisenman, L. T. (2001). Conceptualizing the contribution of career oriented schooling to self-determination. *Career Development for Exceptional Individuals, 24*(1), 3-17.

Federal Register, 34 C.F.R. § 300.1. (1999).

Federal Register, 34 C.F.R. § 300.29 (1999).

Field, S., & Hoffman, A. (1994). Development of a model for self-determination. *Career Development for Exceptional Individuals, 17*(2), 159-169.

Field, S. & Hoffman, A. (1996). *Steps to Self-Determination.* Austin, TX: Pro-Ed Publishing Company.

Field, S., & Hoffman, A. (2002). Lessons learned from implementing the steps to self-determination curriculum. *Remedial and Special Education, 23*(2), 90-98.

Field, S., Hoffman, A., & Posch, M. (1997). Self-determination during adolescence: A developmental perspective. *Remedial and Special Education, 18*(5), 285-293.

Field, S., Martin, J., Mille, R., Ward, M., & Wehmeyer, M. (1998). *A practical guide for teaching self-determination.* Reston, VA: Council for Exceptional Children.

Gerber, P. J., Ginsberg, R., & Reiff, H. B. (1992). Identifying alterable patterns in employment success for highly successful adults with learning disabilities. *Journal of Learning Disabilities, 25*(8), 475-487.

German, S. L., Martin, M. J., Marshall, L., & Sale, R .P. (2000). Promoting self-determination: Using Take Action to teach goal attainment. *Career Development for Exceptional Individuals, 23*(1), 27-38.

Greene, B. A., Dillon, C., & Crynes, B. (2003). Distributive Learning in Introductory Chemical Engineering: Two Studies of University Students' Learning, Motivation, and Attitudes Using a CD-ROM. *Journal of Educational Computing Research, 29,* 189-207.

Greene, B. A. & Miller, R. B. (1996). Influences on course achievement: Goals, Perceived ability, and cognitive engagement. *Contemporary Educational Psychology, 21,* 181-192.

Greenspan, A. (2004, February 20). *The critical role of education in the nation's economy*. Remarks presented at the Greater Omaha Chamber of Commerce 2004 Annual Meeting. Retrieved March 24, 2004, from http//www.federalreserve.gov/boarddocs/speeches/2004/200402202/

Halloran, W. D. (1993). Transition services requirements: Issues, implications, challenges. In R. C. Eaves & P. J. McLaughlin (Eds.), *Recent advances in special education and rehabilitation* (pp. 210-224). Boston: Andover Medical Publishers.

Henderson, C. (2001). *College freshman with disabilities: A biennial statistical profile*. Washington, DC: American Council on Education.

Hoffman, A., & Field, S. (1995). Promoting self-determination through effective curriculum development. *Intervention in School Clinic, 30*(3), 134-141.

Hoffman, A., Field, S., & Sawilowsky, S. (1995). *Self determination assessment battery users guide*. Detroit, MI: Wayne State University.

Horn, L., Berktold, J., & Bobbit, L. (1999, June). *Students with disabilities in postsecondary education: a profile of preparation, participation, and outcomes* (NCES 1999-187). Washington, DC: Office of Educational Research and Improvement, National Center for Education Statistics.

Houchins, D. E. (1998).The self-determination of youths with and without disabilities who have been adjudicated. *Dissertation Abstract International. 59*(09): 3402 (UMI No. 9905963)

Huber Marshall, L., Martin, J.E., Jerman, P., Hughes, W., & Maxson, L. (1997). *Choosing personal goals.* Longmont, CO: Sopris West.

Huber Marshall, L., Martin, J. E., Maxson, L., Hughes, W., Miller, T., McGill, T, & Jerman, P. (1999). *Take action: Making goals happen.* Longmont, CO: Sopris West.

Huber Marshall, L., Martin, J. E., Maxson, L., & Jerman, P. (1997). *Choosing employment goals.* Longmont, CO: Sopris West.

Hughes, C., & Agran, M. (1998). Introduction to the special section: Self-determination: Signaling a systems change? *The Journal of the Association for Persons with Severe Handicaps, 23*(1), 1-4.

Lehman, J. P., Davies, T. G., & Laurin, K. M. (2000). Listening to student voices about postsecondary education, *Teaching Exceptional Children, 23*(5), 60-65.

Levine, M. (1990). *Keeping a head in school: A student's book about learning disabilities and learning disorders.* Cambridge, MA: Educators Publishing Service, Inc.

Maehr, M. L., (1984). Meaning and motivation: Toward a theory of personal investment. In R. Ames & C. Ames (Eds.), *Research on motivation in education: Student motivation*, 1, (pp. 115-144). San Diego, CA: Academic Press.

Martin, J. E. (2003). *Student Background Survey.* Unpublished Survey, University of Oklahoma Zarrow Center, Norman, OK.

Martin, J. E., Huber Marshall, L. (1995). ChoiceMaker: A comprehensive self-determination transition program. *Intervention in School and Clinic, 30*(3), 147-156.

Martin, J. E., Huber Marshall, L., Maxson, L., & Jerman, P. (1996). *Self directed IEP.* Longmont, CO: Sopris West.

Martin, J. E., Hughes, W., Huber Marshall, L., Jerman, P., & Maxson, L. (1997). *Choosing educational goals.* Longmont, CO: Sopris West.

Martin, J. E., Mithaug, D., Oliphint, J., Husch, J. & Frazier, E. (2002). *Self-directed employment: A handbook for transition teachers and employment specialist.* Baltimore, MD: Paul H. Brookes.

Mithaug, D. E., Martin, J. E., & Agran, M. (1987). Adaptability instruction: The goal of transitional programming. *Exceptional Children, 53*(6), 500-505.

Mithaug, D. E., Mithaug, D. K., Agran, M., Martin, J. E. & Wehmeyer, M. L. (2003). *Self-determined learning theory: Construction, verification, and evaluation.* Mahwah, NJ: Lawrence Erlbaum Associates.

Mithaug, D. E., Wehmeyer, M. L., Agran, M., Martin, J. E., & Palmer, S. (1998). The self-determined learning model of instruction: Engaging students to solve their problems. In M. L. Wehmeyer & D. J. Sands (Eds.), *Making it happen: Student involvement in educational planning, decision-making and instruction* (pp. 299-328). Baltimore, MD: Paul H. Brookes.

Mish, F. C. (Ed.). (2001) *The Merriam Webster collegiate dictionary (10th ed.).* Springfield, MA: Merriam-Webster, Incorporated.

Murray, C., Goldstein, D. E., Nourse, S., & Edgar, E. (2000). The postsecondary school attendance and completion rates of high school graduates with learning disabilities. *Learning Disabilities Research, 15,* 119-127.

Nelson, J. R., Smith, D. J., Appleton, V., & Raver, K. (1993). Achievement-related beliefs of college students with disabilities. *Journal of Postsecondary Education and Disability, 10*(2), 9-20.

Nirje, B. (1972). The right to self-determination. In W. Wolfensberger (Ed.) *Normalization: The principle of normalization* (pp. 176-200). Toronto: National Institute on Mental Retardation.

Pennell, R. L. (2001). Self-determination and self-advocacy: Shifting the power. *Journal of Disability Policy Studies, 11*(4), 223-227.

Peterson, L. Y., & Van Dycke, J. L. (2003). *Confidence and Self-Advocacy Scale.* Unpublished Survey, University of Oklahoma Zarrow Center, Norman, OK.

Peterson, L. Y., & Van Dycke, J. L. (2004). *Survival Skills for University Students: Foundations* for Success and Resiliency. Manuscript in preparation.

President Wilson's Address to Congress (1918, February 11). Retrieved August 6, 2003 from http://www.lib.byu.edu/~rdh/wwi/1918/wilpeace.html

Rehabilitation Act Amendments (1992). Retrieved August 11, 2003, from West Virginia University, International Center for Disability Information Web site: ftp://ftp.icdi.wvu.edu/REHABACT/PREAMBLE.92

Raskind, M. H., Goldberg, R. J., Higgins, E. L., & Herman, K. L. (1999). Patterns of change and predictors of success in individuals with learning disabilities: Results from a twenty-year longitudinal study. *Learning Disabilities Research and Practice, 14*(1), 35-49.

Raskind, M. H., Goldberg, R. J., Higgins, E. L., & Herman, K. L. (2002). Teaching "life success" to students with LD: Lessons learned from a 20-year study. *Intervention in School and Clinic, 37*(4), 201-208.

Reis, S. M., Neu, T. W., & McGuire, J. M. (1997). Case studies of high-ability students with learning disabilities who have achieved. *Exceptional Children, 63*(4), 463-479.

Rogan, L. L., & Hartman, L. D. (1990). Adult outcome of learning disabled students ten years after initial follow-up. *Learning Disabilities Focus, 5*(2), 91-102.

Ryan, R. M., & Deci, E. L. (2000a). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology, 25,* 54-67.

Ryan, R. M., & Deci, E. L. (2000b). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78.

Sarason. S. B. (1990). *The predictable failure of educational reform: Can we change course before it's to late?* San Francisco: Jossey-Bass.

Sarver, M. D. (2000). A study of the relationship between personal and environmental factors bearing on self-determination and the academic success of university students with learning disabilities, *Dissertation Abstract International. 61*(08): 3122 (UMI No. 9984478)

Schalock, R. L. (1996). Reconsidering the conceptualization and measurement of quality of life. In R.L. Schalock (Ed.), Quality of life: Vol. 1 Conceptualization and measurement. Washington, DC: American Association on Mental Retardation.

Snyder, E. P., & Shapiro, E. S. (1997). Teaching students with emotional/behavioral disorders the skills to participate in the development of their own IEP's. *Behavioral Disorders, 22*(4), 246-259.

Spekman, N. J., Goldberg, R. J., & Herman, K. L. (1992). Learning disabled children grow up: A search for factors related to success in the young adults years, *Learning Disabilities Research and Practice, 7,* 161-170.

Stodden, R. (2000). *Topical review: Postsecondary supports*, 5 (Study Area 4a). Honolulu, HI: University of Hawaii, Center of Disability Studies, National Center for the Study of Postsecondary Education Supports.

Sweeney, M. A. (1997). The effects of self-determination training on student involvement in the IEP process. *Dissertation Abstract International. 58* (03): 821 (UMI No. 9725019)

U.S. Department of Education, National Center for Education Statistics. (2003). *The condition of education* (NCES 2003-067). Washington, DC: U.S. Government Printing Office.

Vandercook, T., York, J., & Forest, M. (1989). The McGill action planning system (MAPS): A strategy for building the vision. *Journal of the Association of Persons with Severe Handicaps, 14,* 205-215.

Vogel, S. A. (1987). Issues and concerns in LD college programming. In D. J. Johnson & J. W. Blalock (Eds.), *Adults with learning disabilities: Clinical studies* (pp. 239-275). Orlando, FL: Grune & Stratton.

Wagner, M. M., & Blackorby, J. (1996). Transition from high school to work or college: How special education students fare. *The Future of Children Special Education for Students with disabilities, 6*(1), 103-120.

Walden, R. J. (2002). Teaching a goal attainment process to university students with learning disabilities. *Dissertation Abstract International. 63*(05): 1786 (UMI No. 3054049)

Ward, M. (1999). *The special education self-determination initiative.* Retrieved August 8, 2001, from OHSU, Center on Self-Determination Web site: http://edrc.ohsu.edu/self-determination/mward.html

Ward, M. J., & Kohler, P. D. (1996). Promoting self-determination for individuals with disabilities: Content and Process. In L. E. Powers, G. H. S. Singer, & J. Sowers (Eds.), *On the road to autonomy: Promoting self-competence in children and youth with disabilities* (pp. 275-290). Baltimore, MD: Paul H. Brookes.

Wehmeyer, M. L. (1996). Self-determination as an educational outcome: Why is it important to children, and youth with disabilities. In D. Sands, and M. L. Wehmeyer (Eds.), *Self-determination across the life span: Independence and choice for people with disabilities* (pp.17-36).

Wehmeyer, M. L. (1998). Whose future is it anyway: A student-directed transition planning program. In M. L. Wehmeyer & D. J. Sands (Eds.), *Making it happen: Student involvement in educational planning, decision-making and instruction* (pp. 153-165). Baltimore, MD: Paul H. Brookes.

Wehmeyer, M. L. (1999). A functional model of self-determination: Describing development and implementing instruction. *Focus on Autism and Other Developmental Disabilities, 14*(1), 53-61.

Wehmeyer, M. L. (2001). Self-determination and mental retardation. *International Review of Research in Mental Retardation, 24*, 1-48.

Wehmeyer, M. L., Agran, M., & Hughes, C. (1998). *Teaching self-determination to students with disabilities: Basic skills for successful transition.* Baltimore, MD: Paul H. Brookes.

Wehmeyer, M. L., Agran, M., & Hughes, C. (2000). A national survey of teachers' promotion of self-determination and students-directed learning. *Journal of Special Education, 34*(2), 58-68.

Wehmeyer, M., & Lawrence, M. (1995). Whose future is it anyway? Promoting student involvement in transition planning. *Career Development for Exceptional Individuals, 18*(2), 69-83.

Wehmeyer, M. L, Martin, J. E., & Sands, D. (1997). Self-determination for children and youth with developmental disabilities. In A. Hilton, D. Finn & R. Ringlaben (Eds.), *Best and effective practices in educating youth with developmental disabilities* (pp. 191-203). Reston, VA: Council for Exceptional Children.

Wehmeyer, M. L., & Palmer, S. B. (2000). Promoting the acquisition and development of self-determination in young children with disabilities. *Early Education & Development, 11*(4), 465-481.

Wehmeyer, M. L., & Palmer, S. B. (2003). Adult outcomes for students with cognitive disabilities three-years after high school: The impact of self-determination. *Education and Training in Developmental Disabilities, 38*(2), 131-144.

Wehmeyer, M. L., Palmer, S. B., Agran, M., Mithaug, D. E., & Martin, J. E. (2000). Promoting causal agency: The self-determined learning model of instruction. *The Council for Exceptional Children, 66*(4), 439-453.

Wehmeyer, M. L., & Schalock, R. L. (2001) Self-determination and quality of life: Implications for special education services and supports. *Focus on Exceptional Children, 33*(8), 1-16. Retrieved February 22, 2002, from http://ehostvgw20.epnet.com

Wehmeyer, M. L., & Schwartz, M. A. (1997). Self-determination and positive adult outcomes: A follow-up study of youth with mental retardation and learning disabilities. *Exceptional Children, 63,* 245-255.

Wehmeyer, M. L., & Schwartz, M. A. (1998). The relationship between self-determination and quality of life for adults with mental retardation. *Education and Training in Mental Retardation and Developmental Disabilities, 33*(1), 3-12.

Wolman, J. M., Campeau, P. L., DuBois, P. A., Mithaug, D. E., & Stolarski, V. S. (1994). *AIR Self-Determination Scale.* American Institutes for Research and Teachers College, Columbia University.

Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology, 25,* 82-91.

APPENDICES

Appendix A

Quantitative IRB Approval Letter

The University of Oklahoma

OFFICE OF HUMAN RESEARCH PARTICIPANT PROTECTION

September 25, 2003

Dr. James Martin
Zarrow Center
Carpenter Hall, Room 111
CAMPUS MAIL

Dear Dr. Martin:

The Institutional Review Board-Norman Campus has reviewed your proposal, "Leadership Education for Advocacy Development (LEAD)," under the University's expedited review procedures. The Board found that this research would not constitute a risk to participants beyond those of normal, everyday life, except in the area of privacy, which is adequately protected by the confidentiality procedures. Therefore, the Board has approved the use of human subjects in this research.

This approval is for a period of twelve months from September 25, 2003, provided that the research procedures are not changed from those described in your approved protocol and attachments. Should you wish to deviate from the described subject protocol, you must notify this office, in writing, noting any changes or revisions in the protocol and/or informed consent document and obtain prior approval from the Board for the changes. A copy of the approved informed consent document(s) is attached for your use.

At the end of the research, you must submit a short report describing your use of human subjects in the research and the results obtained. Should the research extend beyond 12 months, a progress report must be submitted with the request for continuation, and a final report must be submitted at the end of the research.

If data are still being collected after five years, resubmission of the protocol is required.

Should you have any questions, please contact me at 325-8110 or irh@ou.edu.

Sincerely,

Steven O'Geary, Ph.D.
Director, Human Research Participant Protection
Administrative Officer
Institutional Review Board-Norman Campus (FWA #00003191)

JSO
FY2004-29

Cc: Dr. E. Laurette Taylor, Chair, Institutional Review Board
Dr. Christine Ormsbee, Educational Psychology
Ms. Lori Y. Peterson, Educational Psychology

660 Parrington Oval, Suite 201, Norman, Oklahoma 73019-3085 | HOME: (405) 325-8110 | FAX: (405) 325-2373

Appendix B

Qualitative IRB Approval Letter

The University of Oklahoma

OFFICE OF HUMAN RESEARCH PARTICIPANT PROTECTION

January 9, 2004

Dr. James Martin
Zarrow Center
Carpenter Hall, Room 111
CAMPUS MAIL

SUBJECT: "Leadership Education for Advocacy Development (LEAD)"

Dear Dr. Martin:

The Institutional Review Board has reviewed and approved the following requested revision(s) to the subject protocol:

- Addition of an interview component both in person and via email
- Addition of a consent document for this purpose

Please note that this approval is for the protocol and informed consent form initially approved by the Board on September 25, 2003, and the revision(s) included in your request dated January 5, 2004. If you wish to make other changes, you will need to submit a request for revision to this office for review.

If you have any questions, please contact me at 325-8110.

Sincerely yours,

Steven O'Geary, Ph.D.
Director, Human Research Participant Protection
Administrative Officer
Institutional Review Board - Norman Campus (FWA #00003911)

JSO
PY2004-29

cc: Dr. E. Lanette Taylor, Chair, IRB
Dr. Christine Ormsbee, Educational Psychology
Ms. Lori Y. Peterson, Educational Psychology

660 Parrington Oval, Suite 316, Norman, Oklahoma 73019-3075 PHONE: (405) 325-8110 FAX: (405) 325-2373

Appendix C

Participant Incentive IRB Approval Letter

The University of Oklahoma

OFFICE OF HUMAN RESEARCH PARTICIPANT PROTECTION

March 29, 2004

Dr. James Martin
Zarrow Center
Carpenter Hall, Room 111
CAMPUS MAIL

SUBJECT: "Leadership Education for Advocacy Development (LEAD)"

Dear Dr. Martin:

The Institutional Review Board has reviewed and approved the following requested revision(s) to the subject protocol:

- $50 stipend for completing project meetings and activities
- $50 stipend for completion of the audio-taped exit interview
- addition of Lee L. Woods as a collaborator
- revised consent document that contains the above referenced revisions

Please note that this approval is for the protocol and informed consent form initially approved by the Board on September 25, 2003, and the revision(s) included in your request dated March 1, 2004. If you wish to make other changes, you will need to submit a request for revision to this office for review.

If you have any questions, please contact me at 325-8110.

Cordially,

E. Laurette Taylor, Ph.D.
Chair
Institutional Review Board - Norman Campus (FWA #00003191)

FY2004-39

cc: Dr. Christine Ormsbee, Educational Psychology
Ms. Lori Y. Peterson, Educational Psychology

820 Parrington Oval, Suite 316, Norman, Oklahoma 73019-3059 PHONE: (405) 325-8110 FAX: (405) 325-6373

Appendix D

Participant Recruitment Email

Dear OU Freshmen and Sophomores:
Educators at the University of Oklahoma are working to provide a support network and direct services to OU students with learning disabilities or attention deficit disorder enrolled at OU. Research has shown that specific skills and supports, including interaction with other students with learning disabilities and attention deficit disorder, increases the likelihood of college success for students with learning disabilities. We invite you to volunteer as a participant in a project called Leadership Education for Advocacy Development "LEAD."

This project is designed to develop critical self-determination skills that include such factors as disability awareness, identification of learning accommodations and self-confidence as well as goal setting, motivation and addressing challenges. The project will help you identify support systems that may include family support, interaction with other students and faculty, and university support services. In addition, the project will provide instruction in planning, organization, time management, studying, and learning strategies.

As a LEAD participant, you will be randomly selected to begin the project activities in the fall or spring semester and will be involved in 1 hour group meetings two times per week. If you choose to participate in this project, you have the option to enroll for two elective credit hours under course number EDUC 2960, Independent Study.

All information we obtain about you in the course of the study will be kept confidential. An identifying number and code name will be assigned to you. We will make sure that all information we obtain about you is not associated with your name when we report the findings of the study. We (the researchers) will do everything we can to keep information you share while participating in class discussions from those not associated with the project. Thus, we ask you and the other participants to keep discussions confidential. Still there is the chance that a group member might mention your comments or name in a later conversation. Consequently we cannot guarantee that no one will share what you say. Your alternative is not to participate. You may choose to withdraw from this project at any time without penalty.

If you would like to volunteer to participate in this project, please contact Lori Peterson at the Zarrow Center for Learning Enrichment by October 1st.

Zarrow Center for Learning Enrichment
Carpenter Hall, Room 111
325-8951
lypeterson@ou.edu

Appendix E

Mentor Recruitment Email

Email Subject: Mentors with Learning Disabilities Needed

Dear OU Juniors, Seniors, and Graduate Students:

Educators at the University of Oklahoma are working to provide a support network and direct services to OU students with learning disabilities or attention deficit disorder enrolled at OU. Research has shown that specific skills and supports, including interaction with other students with learning disabilities and attention deficit disorder, increase the likelihood of college success for students with learning disabilities. We invite you to volunteer as a mentor in a project called Leadership Education for Advocacy Development "LEAD."

As a volunteer in this research project, you will mentor in group meetings with OU freshmen and sophomores with learning disabilities or attention deficit disorder. Your participation will include attending group meetings with these students where you will be able to share your learning and studying strategies.

All information obtained through this project will be kept confidential. An identifying number and code name will be assigned to you to ensure this confidentiality. You may choose to withdraw from this project at any time without penalty.

If you would like to volunteer as a mentor in this project, please contact Lori Peterson at the Zarrow Center for Learning Enrichment by October 1st.

Zarrow Center for Learning Enrichment
Carpenter Hall, Room 111
325-8951

Appendix F

Quantitative Consent Letter

Fall Student Consent Letter
for participation in research that is being conducted
under the auspices of the University of Oklahoma-Norman Campus

Dear Student:

INTRODUCTION: Educators at the University of Oklahoma are working to provide a support network and direct services to students with learning disabilities and attention deficit disorder enrolled at OU. Research has shown that specific skills and supports increase the likelihood of success for college students. We are requesting your participation in a research project called "Leadership Education for Advocacy Development (LEAD)."

DESCRIPTION OF THE STUDY: This project is designed to develop critical self-determination skills that include factors such as disability awareness, identification of learning accommodations, self-confidence, as well as, goal setting, motivation, and addressing challenges.

CONDITIONS OF PARTICIPATION: You must be 18 years of age to participate in the project. If you agree to participate in the *fall semester*, we will want you to:

1. Fill out five surveys at the beginning and end of the project. (30-40 minutes to complete all surveys)
   - The first survey will ask about your skills, knowledge, and beliefs for setting and accomplishing goals.
   - The second survey will ask you about your perceptions of learning and studying in the college setting.
   - The third survey will ask you about your perceptions of your disability, strengths, and difficulties.
   - The fourth survey will ask about services you received in high school.
   - The fifth survey will ask about your study habits.
2. Attend group meetings in the fall semester and have the option to attend additional group meetings the following spring semester. (1 hour, 1 to 2 times per week)
3. Fill out the same five surveys (listed above in 1.) at the end of the each additional semester that you participate.
4. Have the option to volunteer to become a mentor to incoming project students.

CONFIDENTIALITY: All information we obtain about you in the course of the study will be kept confidential by the project staff. An identifying number and code name will be assigned to you. We will make sure that all information we obtain about you is not associated with your real name when we report the findings of the study. We (the researchers) will do everything we can to keep information you share while participating in class discussions from those not associated with the project. Thus, we ask you and the other participants to keep discussions confidential. Still there is the chance that a group member might mention your comments or name in a later conversation. Consequently we

cannot guarantee that no one will share what you say. Your alternative is not to participate. You may choose to withdraw from this project at any time without penalty.

COMPENSATION: If you choose to participate in this project, you may enroll for 2 elective credit hours under course number EDUC 2960, Independent Study. If you choose to enroll in elective hours you will be responsible for the tuition and fees associated with enrolling in 2 credit hours. Credit for the project will be based on a satisfactory or unsatisfactory grade. To satisfactorily complete the project you must attend at least 90% of the sessions, and complete all assessment protocols. If you choose to withdraw from the study, at any time during the semester, you will be given permission to withdraw from the elective hours without penalty.

RISKS AND BENEFITS: There are no risks to you beyond those encountered in everyday life except in the area of confidentiality addressed above. Your participation will provide valuable insight into strategies that may impact the success of college students with learning disabilities and attention deficit disorders. Additionally, results of this study will serve as a basis for the development of improved programs for college students with disabilities.

CONTACTS FOR QUESTIONS ABOUT THE STUDY: If you have any questions about this project, you can call Dr. James Martin (325-8951) or Dr. Christine Ormsbee (325-1081) at the University of Oklahoma. Additionally, you may call the University of Oklahoma Office of Research Administration at 325-8110 with questions about your rights as a research participant.

If you agree to participate in this project, please complete and return the permission form on the next page. Please keep these first two pages for your information.

We thank you for considering participation in this project.

Sincerely,

James E. Martin, Ph. D.
Department of Educational Psychology
University of Oklahoma

Christine K. Ormsbee, Ph. D.
Department of Educational Psychology
University of Oklahoma

Lori Y. Peterson, M.A.
Department of Educational Psychology
University of Oklahoma

Fall Informed Consent Form

for participation in
research that is being conducted under the auspices of the University of Oklahoma-Norman Campus

_____ I agree to participate in the project "Leadership Education for Advocacy Development (LEAD)" that was describe in this letter.

_____ I agree to:

1. Fill out five surveys at the beginning and end of the project.
2. Attend group meetings in the fall semester and have the option to attend additional group meetings the following spring semester.
3. Fill out five surveys at the end of the each additional semester that I participate.
4. Have the option to volunteer to become a mentor to incoming project students.

_____ I agree to keep all conversations, occurring during project activities, concerning others in the group confidential.

Your Name: _____
PLEASE PRINT

Your Signature: _____

*After you have filled it out, please return this page to Dr. James Martin at the Zarrow Center for Learning Enrichment, Carpenter Hall Room 111, Phone 325-8951.

Appendix G

Qualitative Consent Letter

Student Consent Letter Addendum
for participation in research that is being conducted
under the auspices of the University of Oklahoma-Norman Campus

Dear Student:

INTRODUCTION: Educators at the University of Oklahoma are working to provide a support network and direct services to students with learning disabilities and attention deficit disorder enrolled at OU. Research has shown that specific skills and supports increase the likelihood of success for college students. We are requesting your participation in additional research activities included in the "Leadership Education for Advocacy Development (LEAD)" project.

DESCRIPTION OF THE STUDY: This project is designed to develop critical self-determination skills that include factors such as disability awareness, identification of learning accommodations, self-confidence, as well as, goal setting, motivation, and addressing challenges.

ADDITIONAL CONDITIONS OF PARTICIPATION: You must be 18 years of age to participate in the project. If you agree to participate in the additional activities we will want you to:

5. Respond to questions sent in weekly emails (15-20 minutes) regarding:
   - An academic success you experienced,
   - An academic challenge you experienced, and
   - Your use of strategies covered in the group meetings
6. Participate in an audio taped individual interview with a LEAD researcher (20-30 minutes). Interview responses will be used to determine the most beneficial components of the project.

CONFIDENTIALITY: All information we obtain about you in the course of the study will be kept confidential by the project staff. An identifying number and code name will be assigned to you. We will make sure that all information we obtain about you is not associated with your real name when we report the findings of the study. Interviews with the researcher will be audio taped to ensure the information is gathered as accurately as possible. You can refuse to be audio taped without any penalty. Audiotapes will be transcribed by a paid transcriptionist. All personally identifying information will be removed from the tapes prior to release to the transcriptionist. Audiotapes will be erased after they have been transcribed. You may choose to withdraw from this project at any time without penalty.

RISKS AND BENEFITS: There are no risks to you beyond those encountered in everyday life except in the area of confidentiality addressed above. Your participation will provide valuable insight into strategies that may impact the success of college students with learning disabilities and attention deficit disorders. Additionally, results of this study will serve as a basis for the development of improved programs for college students with disabilities.

CONTACTS FOR QUESTIONS ABOUT THE STUDY: If you have any questions about this project, you can call Dr. James Martin (325-8951) or Dr. Christine Ormsbee (325-1081) at the University of Oklahoma. Additionally, you may call the University of Oklahoma Office of Research Administration at 325-8110 with questions about your rights as a research participant.

If you agree to participate in this project, please complete and return the permission form on the next page. Please keep these first two pages for your information.

We thank you for considering participation in this project.

Sincerely,

_____ _____

James E. Martin, Ph. D.
Department of Educational Psychology
University of Oklahoma

Christine K. Ormsbee, Ph. D.
Department of Educational Psychology
University of Oklahoma

_____

Lori Y. Peterson, M.A.
Department of Educational Psychology
University of Oklahoma

Consent Form Addendum

for participation in
research that is being conducted under the auspices of the University of Oklahoma-Norman Campus

_____ I agree to Respond to questions sent in weekly emails regarding:

- An academic success you experienced,
- An academic challenge you experienced, and
- Your use of strategies covered in the group meetings

_____ I agree to participate in an audio taped individual interview with a LEAD researcher.

Your Name: _____
PLEASE PRINT

Your Signature: _____

*After you have filled it out, please return this page to Dr. James Martin at the Zarrow Center for Learning Enrichment, Carpenter Hall Room 111, Phone 325-8951.

Appendix H

Consent for Financial Incentive

Student Consent Letter Addendum
for participation in research that is being conducted
under the auspices of the University of Oklahoma-Norman Campus

Dear Student:

INTRODUCTION: Educators at the University of Oklahoma are working to provide a support network and direct services to students with learning disabilities and attention deficit disorder enrolled at OU. Research has shown that specific skills and supports increase the likelihood of success for college students. We are requesting your participation in additional research activities included in the "Leadership Education for Advocacy Development (LEAD)" project.

DESCRIPTION OF THE STUDY: This project is designed to develop critical self-determination skills that include factors such as disability awareness, identification of learning accommodations, self-confidence, as well as, goal setting, motivation, and addressing challenges.

ADDITIONAL CONDITIONS OF PARTICIPATION: You must be 18 years of age to participate in the project. Compensation for previously consented to participation in the LEAD project will be offered to you under the following conditions.

You will receive $50.00 following your completion of the audiotaped exit interview. You may complete the exit interview and receive the $50.00 even if you have not completed all project meetings and activities. If you do not complete the exit interview you will not receive the $50.00.

If you have completed the exit interview, you will receive an additional $50.00 following your completion of all requested project meetings and activities or make-up project meetings and activities for a total of $100.00. If you do not complete all meetings or activities you will not receive the additional $50.00.

You must complete the exit interview to receive any financial compensation.

Checks for the appropriate dollar amount will be available for you to pick up at the Zarrow Center by the end of the semester in which you participate in the project. You will need to provide your social security number to project researchers in order to receive financial compensation. Your social security number will not be connected to any of the materials I complete in the research project, and it will be destroyed as soon as all necessary paper work has been completed to assure that you receive the compensation.

CONFIDENTIALITY: All information we obtain about you in the course of the study will be kept confidential by the project staff. An identifying number and code name will be assigned to you. We will make sure that all information we obtain about you is not associated with your real name when we report the findings of the study. You may choose to withdraw from this project at any time without penalty. Interviews with the researcher will be audio taped to ensure the information is gathered as accurately as possible. You can refuse to be audio taped without any penalty. Audiotapes will be transcribed by a paid transcriptionist. All personally identifying information will be removed from the tapes prior to release to the transcriptionist. Audiotapes will be stored in a lock filing cabinet. Audiotapes will be erased after they have been transcribed. You may choose to withdraw from this project at any time without penalty.

RISKS AND BENEFITS: There are no risks to you beyond those encountered in everyday life except in the area of confidentiality addressed above. Your participation will provide valuable insight into strategies that may impact the success of college students with learning disabilities and attention deficit disorders. Additionally, results of this study will serve as a basis for the development of improved programs for college students with disabilities.

CONTACTS FOR QUESTIONS ABOUT THE STUDY: If you have any questions about this project, you can call Dr. James Martin (325-8951) or Dr. Christine Ormsbee (325-1081) at the University of Oklahoma. Additionally, you may call the University of Oklahoma Office of Research Administration at 325-8110 with questions about your rights as a research participant.

If you agree to participate in this project, please complete and return the permission form on the next page. Please keep these first two pages for your information.

We thank you for considering participation in this project.

Sincerely,

_____ _____

James E. Martin, Ph. D.
Department of Educational Psychology
University of Oklahoma

Christine K. Ormsbee, Ph. D.
Department of Educational Psychology
University of Oklahoma

_____

Lori Y. Peterson, M.A.
Department of Educational Psychology
University of Oklahoma

Consent Form Addendum

for participation in
research that is being conducted under the auspices of the University of Oklahoma-Norman Campus

_____ I agree to be audio taped during my individual interview with a LEAD researcher. Interviews with the researcher will be audio taped to ensure the information is gathered as accurately as possible. Audiotapes will be transcribed by a paid transcriptionist. All personally identifying information will be removed from the tapes prior to release to the transcriptionist. Audiotapes will be stored in a lock filing cabinet. Audiotapes will be erased after they have been transcribed.

_____ I agree to Respond to questions sent in weekly emails regarding:

- An academic success I experienced,
- An academic challenge I experienced, and
- My use of strategies covered in the group meetings

_____ I understand I will receive $50.00 following completion of the audiotaped exit interview. I may complete the exit interview and receive the $50.00 even if I have not completed all project meetings and activities. If I do not complete the exit interview I will not receive the $50.00.

_____ I understand if I have completed the exit interview, I will receive an additional $50.00 following my completion of all requested project meetings and activities or make-up project meetings and activities for a total of $100.00. If I do not complete all meetings or activities I will not receive the additional $50.00.

_____ I understand I must complete the exit interview to receive any financial compensation.

_____ I understand that I must provide my social security number in order to be reimbursed. I also understand that my social security number will not be connected to any of the materials that I complete for this research project, and it will be destroyed as soon as all necessary paper work has been completed to assure I receive the correct financial compensation.

Name: _____
PLEASE PRINT

Signature: _____

*After you have filled it out, please return this page to Dr. James Martin at the Zarrow Center for Learning Enrichment, Carpenter Hall Room 111, Phone 325-8951.

Appendix I

Student Background Survey

Student Background Survey

School Name:
Date:
Age:
Gender:

1. When you were in middle, junior or high school did you have a disability, including learning disabilities, physical disabilities, brain injury, ADHD, mental illness, or other disability?

Yes No

2. *If yes*, what type:
   a. Learning Disability
   b. Physical Disability
   c. Brain Injury
   d. ADD or ADHD
   e. Mental Illness
   f. Autism
   g. Speech
   h. Hearing
   i. Vision
   j. Other - please explain:

3. When you were in middle, junior or high school did you have an IEP?

Yes No

IF YOU ANSWERED QUESTIONS 1, 2, AND 3 NO STOP NOW. IF YOU ANSWERED YES TO *ANY* OF THE ABOVE QUESTIONS CONTINUE

4. Did you utilize special education programs, such as speech therapy, attending a resource room, or attended the general education program with support?

Yes No

5. Did your special education services increase your ability to succeed in school?

Yes No

6. Did your special education services prepare you to go to college or technical school?

Yes No

7. Did you utilize any accommodations or special education services such as extra time on test, note taker, books on tape, or having test read to you?

Yes No

8. Did you utilize modifications to your academic program such as shortened assignments, class substitutions, modified assignments, or modified tests?
   Yes No

9. If you have a learning disability did your high school give you a copy of your disability documentation reports or documents, such as IQ tests and achievement tests scores.
   Yes No

10. Did you have intelligence testing, achievement or any other testing done to support your disability during your k-12 school years?
   Yes No

11. When planning for college or technology school did you take into consideration your disability and the disability services offered by different colleges or technology schools?
   Yes No

12. Did you or do you plan to self-identify at the office for disability student services in order to obtain accommodations and support?
   Yes No

13. *If no,* why not (circle all that apply)?
   a. I no longer need disability support services
   b. I no longer need accommodations or modifications for my class work or tests
   c. I was not aware of the disability support office
   d. I do not want to be seen at the disability support office
   e. I do not want my close friends or other students to see me as having a disability
   f. I do not want my instructors to know that I have a disability
   g. I no longer have a disability
   h. Other, please explain:

14. *If yes,* why (circle all that apply)?
   a. I still need disability support services
   b. I need accommodations or modifications for my class work or tests
   c. My parents wanted me to receive services from the disability support office
   d. My school counselor told me about the accommodations available through the office of disability student services
   e. My special education teacher told me about the accommodations available through the office of disability student services
   f. Other, please explain:

If you will receive services from the office of student disability answer the following questions:

15. It will bother me to be seen by my friends or classmates at the disability support office
    Yes No

16. It will bother me if my close friends or other students see me as having a disability
    Yes No

17. It will bother me if my instructors know that I have a disability
    Yes No

18. I will feel embarrassed about the accommodations that I will receive in class.
    Yes No

19. The Office of Student Disability Services will keep your records and disability status confidential and will not tell your instructor about your disability. Knowing that your disability will be kept confidential from classmates, professors, and administrators, will this information prompt you seek services from the disability support office if you originally had not planned to?

Yes No Does not apply (I plan to seek services from the support office.)

20. Did you attend your IEP meetings in high school?

    Yes No

21. Did you lead your IEP meetings in high school?

    Yes No

Appendix J

AIR Self-Determination Scale (Student Form)

Note. "*AIR Self-Determination Scale*," by J. M. Wolman, P. L. Campeau, P. A. DuBois, D. E. Mithaug, & V. S. Stolarski, 1994, Copyright 1994 by American Institutes for Research and Teachers College, Columbia University. Reprinted with permission

AIR Self-Determination Scale ©

STUDENT FORM

Your Name: _____ Date _____

School Name _____ Your Grade _____

Your Date of Birth _____
month day year

HOW TO FILL OUT THIS FORM

Please answer these questions about how you go about getting what you want or need. This may occur at school, or in sports, or it could relate to your friends, your family, or a job or hobby you have.

THIS IS NOT A TEST ➤ There are no right or wrong answers. The questions will help you learn about what you do well and where you may need help.

goal ➤ You may not be sure what some of the words in the questions mean. For example, the word **goal** is used a lot. **A goal is something you want to get or achieve,** either now or next week or in the distant future, like when you are an adult. You can have many different kinds of goals. You could have a goal that has to do with school (like getting a good grade on a test or graduating from high school). You could have a goal that has to do with getting along better with your friends or your family (like making your mom proud of you). You could have a goal of saving money to buy something (a new Walkman or new sneakers), or doing better in sports (getting on the basketball team). Each person's goals are different because each person has different things that they want or need or that they are good at.

plan ➤ Another word that is used in some of the questions is **plan. A plan is the way you decide to meet your goal, or the steps you need to take in order to get what you want or need.** Like goals, you can have many different kinds of plans. An example of a plan to meet the goal of getting on the basketball team would be: to get better by shooting more baskets at home after school, to play basketball with friends on the weekend, to listen to the coach when the team practices, and to watch the pros play basketball on TV.

© The *AIR Self-Determination Scale* was developed by the American Institutes for Research (AIR), in collaboration with Teachers College, Columbia University, with funding from the U.S. Department of Education, Office of Special Education Programs (OSEP), under Cooperative Agreement H326J000005.

HOW TO MARK YOUR ANSWERS

EXAMPLE QUESTION

I check for errors after completing a project.

EXAMPLE ANSWER

Circle the number of the answer that tells what you are most like.

Circle ONLY ONE number.

1 Never ..... you **never check for errors** after completing a project

2 Almost Never ..... you **almost never check for errors** after completing a project

3 Sometimes..... you **sometimes check for errors** after completing a project

4 Almost Always... you **almost always check for errors** after completing a project

5 Always ..... you **always check for errors** after completing a project

remember

There are NO right or wrong answers.

You will not be graded. So please think about each question carefully before you circle your answer.

THINGS I DO	1 Never	2 Almost Never	3 Sometimes	4 Almost Always	5 Always
1. I know what I need, what I like, and what I'm good at.	1	2	3	4	5
2. I set goals to get what I want or need. I think about what I am good at when I do this.	1	2	3	4	5
				Things I Do Total: Items 1-2	
3. I figure out how to meet my goals. I make plans and decide what I should do.	1	2	3	4	5
4. I begin working on my plans to meet my goals as soon as possible.	1	2	3	4	5
				Things I Do Total: Items 3 4	
5. I check how I'm doing when I'm working on my plan. If I need to, I ask others what they think of how I'm doing.	1	2	3	4	5
6. If my plan doesn't work, I try another one to meet my goals.	1	2	3	4	5
				Things I Do Total: Items 5 6	

HOW I FEEL	1 Never	2 Almost Never	3 Sometimes	4 Almost Always	5 Always
1. I feel good about what I like, what I want, and what I do well.	1	2	3	4	5
2. I believe that I can set goals to get what I want.	1	2	3	4	5
				How I Feel Total: Items 1-2	
3. I like to make plans to meet my goals.	1	2	3	4	5
4. I like to begin working on my plans right away.	1	2	3	4	5
				How I Feel Total: Items 3-4	
5. I like to check on how well I'm doing in meeting my goals.	1	2	3	4	5
6. I am willing to try another way if it helps me to meet my goals.	1	2	3	4	5
				How I Feel Total: Items 5-6	

What Happens at SCHOOL	1 Never	2 Almost Never	3 Sometimes	4 Almost Always	5 Always
1. People at school listen to me when I talk about what I want, what I need, or what I'm good at.	1	2	3	4	5
2. People in school let me know that I can set my own goals to get what I want or need.	1	2	3	4	5

What Happens at School Total: Items 1-2 ☐

3. At school, I have learned how to make plans to meet my goals and to feel good about them.	1	2	3	4	5
4. People at school encourage me to START working on my plans right away.	1	2	3	4	5

What Happens at School Total: Items 3-4 ☐

5. I have someone at school who can tell me if I am meeting my goals.	1	2	3	4	5
6. People at school understand when I have to change my plan to meet my goal. They offer advice and encourage me when I'm doing this.	1	2	3	4	5

What Happens at School Total: Items 5-6 ☐

What Happens at HOME	1 Never	2 Almost Never	3 Sometimes	4 Almost Always	5 Always
1. People at home listen to me when I talk about what I want, what I need, or what I'm good at.	1	2	3	4	5
2. People at home let me know that I can set my own goals to get what I want or what I need.	1	2	3	4	5

What Happens at Home Total: Items 1-2 ☐

3. At home, I have learned how to make plans to meet my goals and to feel good about them.	1	2	3	4	5
4. People at home encourage me to start working on my plans right away.	1	2	3	4	5

What Happens at School Total: Items 3-4 ☐

5. I have someone at home who can tell me if I am meeting my goals.	1	2	3	4	5
6. People at home understand when I have to change my plan to meet my goal. They offer help and encourage me when I'm doing this.	1	2	3	4	5

What Happens at School Total: Items 5-6 ☐

Appendix K

Learning and Studying Scale

Learning and Studying

Please indicate how strongly you agree or disagree with each of the statements listed below by circling the number that corresponds to your opinion.

Strongly Disagree					Strongly Agree
1	2	3	4	5	6

1. I am confident about my ability to learn in college. 1 2 3 4 5 6
2. When I have a difficult class, I simply try harder to be successful. 1 2 3 4 5 6
3. I have a clear idea of what I am trying to accomplish in my classes. 1 2 3 4 5 6
4. When studying, I copy down details exactly as they are stated in the textbook. 1 2 3 4 5 6
5. I persist in the face of challenge because I have positive role models to look up to. 1 2 3 4 5 6
6. I learn new material by relating new ideas with ideas I already know. 1 2 3 4 5 6
7. I am certain I can understand the material presented in my college classes. 1 2 3 4 5 6
8. When I have difficulty in a class, I find out where/how to get help. 1 2 3 4 5 6
9. I set personal goals for achievement in my classes. 1 2 3 4 5 6
10. I persist in the face of challenges because I want to be a role model for others. 1 2 3 4 5 6
11. When I am in a class where I cannot connect with my classmates, I still try hard to be successful 1 2 3 4 5 6
12. I try to write down exactly what the teachers say in class 1 2 3 4 5 6
13. I am confident I have the ability to understand the ideas and skills taught in my college classes. 1 2 3 4 5 6
14. When I have a difficult class, I drop it quickly. 1 2 3 4 5 6
15. When studying, I determine what material is least well understood and then focus my efforts on that material. 1 2 3 4 5 6

Strongly Disagree					Strongly Agree
1	2	3	4	5	6

16. When I am in a class where I cannot connect with my instructor, I still try hard to be successful. 1 2 3 4 5 6

17. I persist in the face of challenge because being successful is personally important. 1 2 3 4 5 6

18. I organize my study time well. 1 2 3 4 5 6

19. I am certain I can learn the ideas and skills taught in college. 1 2 3 4 5 6

20. When I have difficulty in a class, I am reluctant to seek extra help. 1 2 3 4 5 6

21. When I am in a class where I don't feel understood by my classmates, I still work hard. 1 2 3 4 5 6

22. I recopy my notes to help me learn the material. 1 2 3 4 5 6

23. I persist in the face of challenge because I feel supported by those close to me. 1 2 3 4 5 6

24. When I am in a class where I don't feel understood by my instructor, I still work hard. 1 2 3 4 5 6

25. I can succeed at college. 1 2 3 4 5 6

26. When I read something in a book that doesn't make sense, I skip it and hope that the teacher explains it in class. 1 2 3 4 5 6

27. When studying, I analyze concepts to see how they apply to me. 1 2 3 4 5 6

28. I do not use my study time effectively. 1 2 3 4 5 6

29. When I am in a class where I don't feel respected by my classmates, I still work hard. 1 2 3 4 5 6

30. I persist in the face of challenge because I don't want to disappoint my family. 1 2 3 4 5 6

31. I am sure that I will be successful in my college classes. 1 2 3 4 5 6

32. When I run into a difficult assignment, I keep working at it until I think I've completed it. 1 2 3 4 5 6

Strongly Disagree					Strongly Agree
1	2	3	4	5	6

33. When studying, I think about how the theories and concepts are related to each other. 1 2 3 4 5 6

34. When I am in a class where I don't feel respected by my instructor, I still work hard. 1 2 3 4 5 6

35. When studying, I write out lists of terms and definitions. 1 2 3 4 5 6

36. I persist in the face of challenges because I don't want to let my friends down. 1 2 3 4 5 6

37. I will complete my college education. 1 2 3 4 5 6

38. When I run into a difficult assignment, I give up and go on to something else. 1 2 3 4 5 6

39. When I am in a class where I don't respect my classmates, I still try hard to be successful. 1 2 3 4 5 6

40. When I work on an assignment, I make sure I know what I am asked to do before I begin. 1 2 3 4 5 6

41. When I am in a class where I don't respect my instructor, I still try hard to be successful. 1 2 3 4 5 6

42. I persist in the face of challenge because I don't want to let my tribe down. 1 2 3 4 5 6

43. I am certain that I will earn my college degree. 1 2 3 4 5 6

44. I create new examples of my own to check my understanding of theories and concepts learned in my classes. 1 2 3 4 5 6

45. When I am in a class where I dislike my classmates, I still do my best work. 1 2 3 4 5 6

46. I mainly read my textbooks to get information needed for tests. 1 2 3 4 5 6

47. When learning new material, I summarize it in my own words. 1 2 3 4 5 6

48. I try to complete my homework assignments as quickly as possible. 1 2 3 4 5 6

Strongly Disagree					Strongly Agree
1	2	3	4	5	6

49. I will not successfully complete my degree requirements. 1 2 3 4 5 6

50. When I am in a class where I dislike my instructor, I still do my best work. 1 2 3 4 5 6

51. It is unlikely that I will complete my college education. 1 2 3 4 5 6

Appendix L

Confidence and Self-Advocacy Scale

Confidence and Self-Advocacy

Directions- The following statements are about what you think and believe about your disability. Read each statement and indicate how much you agree that the statement is true of you. Use the 6-point scale below to indicate your response.

Strongly Disagree					Strongly Agree
1	2	3	4	5	6

Circle the number that corresponds to each of your answers.

I understand …

1.	the nature of my disability.	1	2	3	4	5	6
2.	my learning strengths.	1	2	3	4	5	6
3.	my learning difficulties.	1	2	3	4	5	6

I can…

4.	talk with others about my disability.	1	2	3	4	5	6
5.	identify accommodations that are appropriate for me.	1	2	3	4	5	6
6.	get others to understand my accommodation needs.	1	2	3	4	5	6
7.	feel comfortable talking about my learning *difficulties* to my *friends*.	1	2	3	4	5	6
8.	explain my learning *difficulties* to my *friends*.	1	2	3	4	5	6
9.	feel comfortable talking about my learning *strengths* to my *friends*.	1	2	3	4	5	6
10.	explain my learning *strengths* to my *friends*.	1	2	3	4	5	6

I can…

11. feel comfortable talking about my learning *difficulties* to my *family*.	1	2	3	4	5	6
12. explain my learning *difficulties* to my *family*.	1	2	3	4	5	6
13. feel comfortable talking about my learning *strengths* to my *family*.	1	2	3	4	5	6
14. explain my learning *strengths* to my *family*.	1	2	3	4	5	6
15. feel comfortable talking about my learning *difficulties* to my *instructors*.	1	2	3	4	5	6
16. explain my learning *difficulties* to my *instructors*.	1	2	3	4	5	6
17. feel comfortable talking about my learning *strengths* to my *instructors*.	1	2	3	4	5	6
18. explain my learning *strengths* to my *instructors*.	1	2	3	4	5	6
19. feel comfortable talking about my learning *difficulties* to *support personnel*.	1	2	3	4	5	6
20. explain my learning *difficulties* to *support personnel*.	1	2	3	4	5	6
21. feel comfortable talking about my learning *strengths* to *support personnel*.	1	2	3	4	5	6
22. explain my learning *strengths* to support *personnel*.	1	2	3	4	5	6

Appendix M

Study Behavior Inventory- Paper Version

Note. “Study Behavior Inventory,” by L. Bliss and R. Mueller, 1987, Copyright 1987 by Andragogy Associates. Reprinted with permission

STUDY BEHAVIOR INVENTORY

Lennard Bliss & Richard Mueller

This survey is designed to find out what study habits and skills you have developed at this state of your college career. Knowing the results of this inventory can help students develop better and more productive ways to study and can help teachers do a better job of teaching.

All the information in this survey will be kept in strictest confidence, so please be frank and honest with your answers.

The following is a list of statements of habits and attitudes which may affect use of study time and consequent success in school work and study. Please state your habits with regard to these items, *not* in accordance with what you think you should or should not do, or what you see others do, but in accordance with what you yourself are in the habit of doing. Please answer all questions.

After each statement, you will find columns 1, 2, 3, and 4. Mark each item by checking (✓) the space in column 1, 2, 3, or 4 -- whichever best describes your behavior. Remember, this is a survey of your present habits and attitudes of study. Check each item in accordance with the following key:

Column 1: Rarely or never true in my case
Column 2: Sometimes true in my case
Column 3: Often or usually true in my case
Column 4: Always or almost always in my case

	1	2	3	4
1. My time is unwisely distributed. I spend too much time on some things and not enough on others	—	—	—	—
2. I find it hard to force myself to finish work by a certain time; work is unfinished, inferior, or not in on time.....				
3. With some of my courses, I like to study with others.....	—	—	—	—
4. I complete my homework assignments on time.....				
5. I try to carry over and relate material learned in one course to that learned in others.....	—	—	—	—
6. I copy diagrams, drawings, tables, and other illustrations that the instructor puts on the blackboard.....				

Column 1: Rarely or never true in my case
Column 2: Sometimes true in my case
Column 3: Often or usually true in my case
Column 4: Always or almost always in my case

	1	2	3	4
7. I keep my assignments up-to-date by doing my work regularly from day to day				
8. I prefer to study alone rather than with others				
9. At the beginning of a study period, I organize my work so that I will utilize the time most effectively				
10. When I am having difficulty with my schoolwork, I try to talk over the trouble with the teacher				
11. In preparing reports, themes, term papers, etc., I make certain that I clearly understand what is wanted before I begin to work				
12. When I get behind in my school work for some unavoidable reason, I make up back assignments without prompting from the teacher				
13. Difficulty in expressing myself in writing slows me down on reports, themes, examinations, and other work to be turned in				
14. My teacher criticizes my written reports as being hastily written or poorly organized				
15. I lay aside returned examinations, reports, and homework assignments without bothering to correct errors noted by the instructor				
16. My studying is done in a random, unplanned manner impelled mostly by the demands of approaching classes				
17. I try to do some "over-learning" -- working beyond the point of immediate memory or recall				
18. I put off writing themes, reports, term papers, etc., until the last minute				
19. I watch too much television, and this interferes with my studies				
20. I work too many hours for the course load I am carrying				
21. Personal problems with my family affect my ability to concentrate on studying				
22. I have to re-read material several times -- words don't have much meaning the first time I go over them				

Column 1: Rarely or never true in my case
Column 2: Sometimes true in my case
Column 3: Often or usually true in my case
Column 4: Always or almost always in my case

	1	2	3	4
23. I try to summarize, classify, and systematize the facts learned, associating them with previously learned materials and facts.....	___	___	___	___
24. I skip over the figures, graphs, and tables in a reading assignment.....	___	___	___	___
25. After reading several pages of an assignment, I am unable to recall what I just read.....	___	___	___	___
26. When in doubt about the proper form for a written report, I refer to an approved model to provide a guide to follow.....	___	___	___	___
27. When reading a long textbook assignment, I stop periodically and mentally review the main points that have been presented.....	___	___	___	___
28. When writing down notes from a lecture, I have trouble picking out the important points; I tend to put down material which turns out to be unimportant.....				
29. After a class lecture, I go back and recite to myself the material in my notes -- re-checking points I find doubtful.....	___	___	___	___
30. I keep all the notes for each subject together, carefully arranging them in some logical order.....				
31. Before attending class, I prepare by reading or studying the assignment...	___	___	___	___
32. I get nervous and confused when taking an examination and fail to answer questions to the best of my ability.....	___	___	___	___
33. I do poorly on tests because I find it hard to think clearly and plan my work when I am faced with an exam.....	___	___	___	___
34. I have difficulty in picking out important points of a reading assignment -- points that later appear on examinations.....				
35. I lose points on true-false or multiple-choice examinations because I change my original answer only to discover later that I was right the first time.....	___	___	___	___
36. I plan out in my mind the answer to subjective or essay type examination questions before starting to write the answer.....	___	___	___	___

Column 1: Rarely or never true in my case
Column 2: Sometimes true in my case
Column 3: Often or usually true in my case
Column 4: Always or almost always in my case

	1	2	3	4
37. When preparing for a examination, I learn the facts in some logical order of importance, order of presentation in class or textbook, order of time in history, etc.	___	___	___	___
38. I am careless with spelling and mechanics of English composition when answering examination questions.				
39. Although I work until the last possible minute, I am unable to finish examinations within the allotted time.	___	___	___	___
40. If time is available, I take a few minutes to check over my answers before turning in my examination paper.	___	___	___	___
41. When tests are returned, I find my grade has been lowered because of careless mistakes.	___	___	___	___
42. During an examination, I forget names, dates, formulas, and other details that I really do know.	___	___	___	___
43. I believe that grades are based upon a student's ability to memorize facts rather than upon the ability to "think things through".				
44. I study harder for final exams than for the rest of my coursework.	___	___	___	___
45. I think I could do much better on tests if I could take them alone and/or not feel pressured by a time limit.				
46. Worry about how well I will do interferes with my preparation and performance.	___	___	___	___

(END OF SURVEY)

_____ _____

First Name (Print) *Last Name (Print)*

_____ _____

Date *Identification Number*

Appendix N

Sample Weekly Email

It was great to meet with all of you this last week. I would like you to take a few minutes and answer the following questions for me. I am not looking for specific answers, correct spelling, or perfect grammar. I would just like you to reflect on the events of the past week. Your responses will be kept confidential. Please respond as soon as possible.

1. Describe an academic success you had this week. This could be many things. For example it could be something good that happened or something you did well.

2. What did you do to make the academic success happen?

3. Describe an academic challenge you had this week. Again, this could be many things.

4. How did you handle the academic challenge?

5. Was there a time this week when you thought about the outcomes of doing something to help you get motivated? Describe what happened.

Thanks for taking the time. Have a great break!

Appendix O

Exit Interview Protocol

Interview Protocol
Project: Leadership for Advocacy Development

Time of Interview:
Date:
Place:
Interviewer:
Interviewee:
Position of Interviewee:

Questions:

1. What made you initially interested in becoming a part of the project?
2. What were your expectations for the project?
3. What were the most important things you got out of this project?
4. What were the obstacles in participating in the project? In completing the project activities?
5. What could have been done to make the project more accessible to you?
6. How would you prioritize your daily responsibilities and where within those did the project rank? Why did you rank the project this way and what could have made it more of a priority for you?
7. What specific strategies are you using and will use in the future to support your academic?
8. What additional information or activities would you have liked to cover during the project?
9. Where to you currently see your self-determination? (Refer to the Field and Hoffman model)
10. Thinking back to last semester and things that happened in your life and at school, how did your self-determination fluctuate over the semester? What events do you think had a specific impact? (Refer to Hour Glass discussion)
11. How do you define academic success?
12. What do you think makes you successful?
13. What advice would you give other students to help them succeed in college?

*Thank individual for participating in this interview. Assure him or her of confidentiality of responses and potential future interviews.

Appendix P

Session-By-Session Intervention Agenda

Lesson One:

Value Yourself

1. Introduction
2. Project Introduction
    a. Research Project
    b. Support Project
3. Description of Participant Requirements
4. Consent Letter and Form
5. Consent Signature
6. Baseline Measures (30 Minutes)
7. Assessments at Assessment Center
8. Notecard-Indicate topic of interest or need to address.
9. "Pokerchips"-Video clip from "When the Chips are Down" by Rick Lavouie (10-minutes)
10. Discussion of the meaning of "Pokerchips" and give student a pokerchip (3-minutes)

Lesson Two:

Know Yourself

1. Introduction and ice breaker
2. Notebooks
3. 25 positive things list
    a. Discussion relating to "Pokerchips" and difficulty identifying positive things/ ease of negative things. Need to stay focused on the positives.
4. Academic Motivation Discussion
    a. College Expectations form
        i. Independently answer questions
        ii. Share responses with group
5. Legal Rights and Responsibilities of College Students with Disabilities. (Modified from U.S. Department of Education, National Center for Education Statistics. (2003). *The condition of education* (NCES 2003-067). Washington, DC: U.S. Government Printing Office)
6. Schedule next meetings
7. Remind of assessments from Assessment Center

Lesson Three:

Plan

1. Introduction and ice breaker
2. Consent
3. Planner
    a. Different Methods – What works for you? A little experiment.
    b. Scheduling items
        i. Different colors or highlighting
    c. Planning time
        i. Studying
        ii. Fun
        iii. Finals
        iv. Work
    d. Tick marks for how often you look at week or month until the next meeting
4. Schedule next meetings
5. Remind of assessments from Assessment Center

Lesson Four:

Act

1. Follow-up with schedules
2. Questions regarding finals schedule and appropriate study plan
3. Disclosure Dilemma (Modified from Buchanan, L., & Mooney, M. (2003). The disclosure dilemma. Presentation presented at DCDT 12th International Conference, Roanoke, VA))
    a. What, Why, Who, When, Where, and How?
4. Give magnetic poker chip. Symbol to remind you to give yourself "pokerchips."
5. Collect Study Behavior Inventory results

Lesson Five:

1. Incentive lunch and group socializing
2. During Measures
3. Request for next semesters schedules
4. Plan to begin meetings the second week of next semester.

Lesson Six:

1. Pizza
2. "To Do" List
3. Books
4. Schedule
    a. Individual Meetings
    b. Next Meeting Date
    c. Withdraw from Course Date
5. Consent
6. Register for Course
7. Self-Determination
    a. *Little Engine That Could* by Watty Piper Discussion
    b. Field and Hoffman Model Discussion
    c. "Hour Glass" description of self-determination fluctuation
8. Reminder to Complete Items on "To Do" List

Lesson Seven:

Know Yourself

1. Select Book Sections to Read
2. Review Course Schedule
3. Review Course Syllabi
4. Assignment and test schedule
    a. Complete Form
5. Review Diagnostic Assessment Data
6. Develop Accommodation Plan

Lesson Eight:

Plan

1. Take Action form and process
    a. Guided students through a sample goal using the Take Action process.
2. Schedule next meeting - individual
    a. Students must develop take action plan for a chosen goal and act.
    b. Next meeting will evaluate and adjust Take Action Plan

Lesson Nine:

Experience & Learn

1. Take Action form and process
    a. Monitor students academic goal
    b. Guide students through the Act, Evaluate, and Adjust process

Lesson Ten:

Know Yourself

1. Group discussion of *Keeping Ahead in School* by Mel Levine (Reschedule to Lesson 12)
    a. Student contribution to discussion: information, ideas, personal thoughts about individual chapters they read.

Lesson Eleven:

Act

1. Office of Disability Services Guest Speaker
    a. Discussion of eligibility process, available accommodations, and benefits of accessing disability support services.

Lesson Twelve

1. Reschedule of group discussion of *Keeping Ahead in School* (Reschedule to Lesson 13)

Lesson Thirteen

1. Reschedule of discussion of *Keeping Ahead in School*, address with individual students

Appendix Q

Take Action Form

Note. “Take Action,” by L. Huber Marshall, J. E. Martin, L. Maxson, W. Hughes, T. Miller, T. McGill, & P. Jerman, 1999, Copyright 1999 by Sopris West. Reprinted with permission

Take Action (page 1)

Name _____ Date _____

Directions

Long-Term Goal Write your long-term goal on the line below.

Short-Term Goal Write your short-term goal on the line below. Short-term goals are smaller goals that lead to your long-term goal. Short-term goals are things you can work on during the next week.

1. Plan Write a plan to accomplish your short-term goal. Complete the six parts of the plan by answering the questions in each box.

2. Action Next week, review your action. Answer the question, "Did I meet my short-term goal?" Answer the questions in each box on page 2 of this worksheet.

3. Evaluate After you complete the questions in Part 2: Action, evaluate whether each part of your plan worked. Write the reasons they did or didn't work in each box under Part 3: Evaluate. Answer the question, "What were the main reasons you got these results?" Look at your reasons in the Evaluate boxes. Decide which of those are the main reasons you got the results you did. Write them in the space under the question.

4. Adjust Decide if you want to change your short-term goal. If you want to change it, write a new one on the line on page 3. You will probably want to adjust the parts of your plan that didn't work. Write the changes in the boxes. Remember which parts of your plan did work so you can use them again.

Long-Term Goal _____

Short-Term Goal _____

Part 1: Student Plan

STANDARD What will I be satisfied with?	MOTIVATION Why do I want to do this?	STRATEGY What methods should I use?	SCHEDULE When will I do this?	SUPPORT What help do I need?	FEEDBACK How will I get information on my performance?

Take Action (page 2)

Name _____ Date _____

Short-Term Goal _____

Did I meet my short-term goal? YES NO

Part 2: Action

STANDARD	MOTIVATION	STRATEGY	SCHEDULE	SUPPORT	FEEDBACK
Did I meet the standard? yes no	Was I motivated? yes no	Did I use the strategy? yes no	Did I follow the schedule? yes no	Did I use support? yes no	Did I get feedback? yes no

Part 3: Evaluate

STANDARD	MOTIVATION	STRATEGY	SCHEDULE	SUPPORT	FEEDBACK
Was it the right standard? yes no Why or why not?	Did it work? yes no Why or why not?	Did it work? yes no Why or why not?	Did it work? yes no Why or why not?	Did it work? yes no Why or why not?	Was the feedback helpful? yes no Why or why not?

What were the main reasons you got these results? Look at the Action and Evaluate sections. If you met your short-term goal, consider the parts of the plan you answered "yes." If you didn't meet the short term goal, consider the parts you answered "no."

Part 4: Adjust

Short-term Goal? **OK or change? If change, new short-term goal**

STANDARD	MOTIVATION	STRATEGY	SCHEDULE	SUPPORT	FEEDBACK
If standard wasn't right, what will I change?	If I wasn't motivated, what will I change?	If my strategy didn't work, what will I change?	If I didn't follow my schedule, what will I change?	If my support didn't work, what will I change?	If feedback wasn't helpful, what will I change?

Appendix R

Mentor Consent Form

Mentor Confidentiality Consent Form

for participation as a mentor in a
research project that is being conducted under the auspices of the University of Oklahoma-Norman Campus

All information we obtain through this project will be kept confidential by the project staff and participants. An identifying number and code name will be assigned to you to ensure this confidentiality. There is no physical or psychological danger to you. You may choose to withdraw from this project at any time without penalty.

_____ I agree to keep all conversations, occurring during project activities, concerning others in the group confidential.

Your Name: _____
PLEASE PRINT

Your Signature: _____

*After you have filled it out, please return this page to Dr. James Martin at the Zarrow Center for Learning Enrichment, Carpenter Hall Room 111, Phone 325-8951.

Appendix S

Permission to Reprint *Model for Self-Determination*

From: Test, David [dwtest@email.uncc.edu]
Sent: Thursday, June 03, 2004 12:51 PM
To: Lori Y. Peterson
Subject: RE: Request Permission to Reprint

Ms. Peterson,

You have permission to reprint Figure 1 from the following article:

Field, S., & Hoffman, A. (1994). Development of a model for self-determination. Career Development for Exceptional Individuals, 17(2), 159-169.

Good luck with your dissertation.

David W. Test
Graduate Coordinator
Special Education Program
UNC Charlotte
9201 University City Blvd.
Charlotte, NC 28223-001
704.687.3731 (office)
704.687.2916 (fax)

Appendix T

Permission to Reprint *Functional Model of Self-Determination*

15 July 2004 Our ref: HW/RC/Jul04/J086

Lori Y Peterson
College of Education
University of Oklahoma
lypeterson@ou.edu

Dear Ms Peterson

INTERNATIONAL REVIEW OF RESEARCH IN MENTAL RETARDATION, Vol 24, 2001, Wehmeyer, pp 1-48, "Self-determination and mental retardation", figure 2 only

As per your letter dated 28 June 2004, we hereby grant you permission to reprint the aforementioned material at no charge **in your thesis** subject to the following conditions:

1. If any part of the material to be used (for example, figures) has appeared in our publication with credit or acknowledgement to another source, permission must also be sought from that source. If such permission is not obtained then that material may not be included in your publication/copies.

2. Suitable acknowledgment to the source must be made, either as a footnote or in a reference list at the end of your publication, as follows:

   "Reprinted from Publication title, Vol number, Author(s), Title of article, Pages No., Copyright (Year), with permission from Elsevier".

3. Reproduction of this material is confined to the purpose for which permission is hereby given.

4. This permission is granted for non-exclusive world **English** rights only. For other languages please reapply separately for each one required. Permission excludes use in an electronic form. Should you have a specific electronic project in mind please reapply for permission.

5. This includes permission for UMI to supply single copies, on demand, of the complete thesis. Should your thesis be published commercially, please reapply for permission.

Yours sincerely

Helen Wilson

Rights Manager

Your future requests will be handled more quickly if you complete the online form at
www.elsevier.com/locate/permissions

Appendix U

Permission to Reprint *AIR Self-Determination Scale* (Student Form)

From: Dennis Mithaug [dem21@columbia.edu]
Sent: Friday, July 09, 2004 5:26 PM
To: Lori Peterson
Subject: Re: Request Permission to Reprint

Sure, Lori use it as you wish. And good luck on your project.

Dennis Mithaug

----- Original Message -----
From: "Lori Peterson" <lypeterson@ou.edu>
To: <dem21@columbia.edu>
Sent: Friday, July 09, 2004 4:54 PM
Subject: Request Permission to Reprint

> Dr. Mithaug,
> I am a doctoral student at the University of Oklahoma working on my
> dissertation entitled College Students with Disabilities: Building
> Self-Determination and Self-Efficacy. I have used the AIR Self-Determination Scale (Student Form) as a pre-during-post measure. I would like to request permission to include a scanned reprint of the AIR Self-Determination Scale(Student Form)in my dissertation.
>
> Please let me know if I need to provide additional information or
> contact another source. I appreciate your time and look forward to
> hearing from you.
> Thank you,
> Lori Peterson
>
>

Appendix V

Permission to Reprint *Study Behavior Inventory*

From: Gkerstie@aol.com
Sent: Tuesday, June 22, 2004 11:29 AM
To: Lori Peterson
Subject: Re: SBI Permission to reprint

Lori,

Sorry this has taken so long. We were on vacation. I tried to call you this morning but received no answer.

If you are asking to reprint a paper-and-pencil copy of the SBI survey, of course you have permission. If you want hard copy mailed to you, tell me and it will be sent.

As you may have conjectured, quite a few doctoral students have used the SBI as the discriminating instrument in their dissertations. We like to keep track of these. We would ask you to inform us of the title of your paper, provide an abstract, and indicate the school of residence.

Please let me know.

Gene Kerstiens, Ed.D
Andragogy Associates
310. 326-5819

Appendix W

Permission to Reprint *Take Action* form

We are happy to grant you permission to use the form stated in your e-mail. Please give proper source credit and good luck with your work.
Joanna Huhman
Executive Administrative Assistant/Permissions
720-494-4101

-----Original Message-----
From: Lori Peterson
Sent: Wednesday, July 28, 2004 3:38 PM
To: Rebecca Williamson
Subject: Permission to Reprint

Rebecca,
I am a doctoral student at the University of Oklahoma finishing my dissertation entitled College Students with Disabilities: Building Self-Determination and Self-Efficacy. Jim Martin, my advisor, suggested that I contact you to request permission to include a reprint of the Take Action form in my dissertation. I have used the Take Action form as part of my intervention. In the exit interviews, students repeatedly mentioned how they liked the strategy and would use it in the future.

I am specifically asking to reprint the Take Action (Page 1) on page 18 of the reproducibles, and Take Action (Page 2) on page 21 of the reproducibles in Huber Marshall, L., Martin, J. E., Maxson, L., Hughes, W., Miller, T., McGill, T, & Jerman, P. (1999). Take action: Making goals happen. Longmont,
CO: Sopris West.

Please let me know if I need to provide additional information or contact another source. I appreciate your time and look forward to hearing from you.

Thank you,
Lori Peterson