

AN INVESTIGATION OF COPING SKILLS, LOCUS OF CONTROL,
AND QUALITY OF LIFE IN YOUNG ADULTS
WITH LEARNING DISABILITIES

Except where reference is made to the work of others, the work described in this dissertation is my own or was done in collaboration with my advisory committee. This dissertation does not include proprietary or classified information.

Amy Mixon Cooper

Certificate of Approval:

Elizabeth V. Brestan
Associate Professor
Psychology

Steven K. Shapiro, Chair
Associate Professor
Psychology

William F. Buskist
Professor
Psychology

Bridget F. Smith
Visiting Assistant Professor
Psychology

Joe F. Pittman
Interim Dean
Graduate School

AN INVESTIGATION OF COPING SKILLS, LOCUS OF CONTROL,
AND QUALITY OF LIFE IN YOUNG ADULTS
WITH LEARNING DISABILITIES

Amy Mixon Cooper

A Dissertation

Submitted to

the Graduate Faculty of

Auburn University

in Partial Fulfillment of the

Requirements for the

Degree of

Doctor of Philosophy

Auburn, Alabama
December 15, 2006

AN INVESTIGATION OF COPING SKILLS, LOCUS OF CONTROL,
AND QUALITY OF LIFE IN YOUNG ADULTS
WITH LEARNING DISABILITIES

Amy Mixon Cooper

Permission is granted to Auburn University to make copies of this dissertation at its discretion, upon request of individuals or institutions, and at their expense. The author reserves all publication rights.

Signature of Author

Date of Graduation

VITA

Amy Mixon Cooper, daughter of Ruth and Charles Ash and James Edward Mixon, was born on September 25, 1973 in Birmingham, Alabama. She graduated from Homewood High School in 1995. She attended Birmingham-Southern College in before entering Samford University in January of 1997. She graduated magna cum laude from Samford University with a Bachelor of Science degree in Psychology in 1998. She matriculated into the graduate program in Child Clinical Psychology at Auburn University in September of 1995 and received a Master of Science degree in 1998. She married Bruce William Cooper on October 8, 2005.

DISSERTATION ABSTRACT
AN INVESTIGATION OF COPING SKILLS, LOCUS OF CONTROL,
AND QUALITY OF LIFE IN YOUNG ADULTS
WITH LEARNING DISABILITIES

Amy Mixon Cooper

Doctor of Philosophy, December 15, 2006
(M.S., Auburn University, 1998)
(B.S., Samford University, 1995)

89 Typed Pages

Directed by Steven K. Shapiro

Research in the field of learning disabilities (LD) has traditionally emphasized the deficits associated with the diagnosis. Recent research efforts demonstrate a shift towards a more positive approach in an effort to learn more about factors that may contribute to competence and long-term success for individuals with LD. The present study utilized objective, standardized measures to assess self-reported coping strategies, locus of control, and life satisfaction in a sample of young non-college attending adults with and without LD. Participants also rated their perceptions of their own success. Thirteen young adults (ages 19-25 years) who had been diagnosed previously with an LD were matched with thirteen controls without LD. All participants had completed high school or obtained a High School Equivalency Diploma.

Contrary to hypotheses, participants with and without LD did not differ significantly on locus of control, overall life satisfaction, coping skills, or self-reported success. In addition, no differences between the two groups were found in self-reported success. Participants in both groups reported higher scores on the Adult Nowicki-Strickland Internal-External Locus of Control Scale (ANSIE) than are typically described in the general literature. Scores for participants with and without LD fell in the “average” range of life satisfaction on the Quality of Life Inventory (QOLI).

Some evidence for a relationship between external locus of control and maladaptive coping strategies for all participants was found. Scores on the Mental Disengagement scale of the Coping Orientation to Problem Experience (COPE) Inventory correlated positively with locus of control as measured by the ANSIE. In addition, significant negative correlations were found for the Health, Self-Esteem, Money, Neighborhood, and Community weighted satisfaction scores on the QOLI. Participants with LD reported being more satisfied with their goals and values and the helping that they do on the QOLI than the participants without LD, although there were no differences between groups on how *important* they rated these areas to their overall happiness. These findings are discussed in relation to previous research involving young adults with LD and implications for future research are presented.

ACKNOWLEDGEMENTS

The author would like to thank Dr. Steven K. Shapiro for his continual guidance and support throughout the dissertation process. His mentorship was invaluable in the completion of this project. Thanks are also due to Drs. Roger Blashfield, Elizabeth Brestan, Bill Buskist, and Bridget Smith for giving their time to serve on the dissertation committee. Dr. Karen Rabren's service as the outside reader is appreciated.

I would also like to thank my family: Ruth and Charles Ash, Ed Mixon, Kim and Mike Spinello, Amanda and Chris Mixon, and Marian Cranford for their continued encouragement and inspiration. Finally, completion of this dissertation would not have been possible without the unwavering support of my husband, Bruce Cooper.

Style manual or journal used: APA, Fifth Edition

Computer Software used: Microsoft Word for Windows XP, SPSS

TABLE OF CONTENTS

LIST OF TABLES AND FIGURES.....	x
I. INTRODUCTION	
Background.....	2
Individual Factors and LD.....	7
Definitions of Success.....	13
Rationale.....	15
Goals and Hypotheses.....	17
II. METHOD	
Participants.....	19
Materials.....	21
III. RESULTS.....	26
IV. DISCUSSION.....	28
REFERENCES.....	39
APPENDICES.....	62
A. Measures.....	62
B. COPE Individual Items.....	76

LIST OF TABLES AND FIGURES

1.	Participant Demographics.....	56
2.	Group Differences on the Quality of Life Inventory.....	57
3.	Group Comparison on Self-Reported Success.....	58
4.	Group Comparison on the COPE Inventory.....	59
5.	Correlation of QOLI of Weighted Satisfaction Scales and ANSIE Total Locus of Control	60
6.	Correlation of Cope Maladaptive Cluster/Subscales and ANSIE Total Locus of Control.....	61

INTRODUCTION

Young adults with learning disabilities (LD) represent a diverse group of individuals with different talents and needs (Shapiro & Rich, 1999). As with any diverse group, the heterogeneous nature of the LD population presents a challenge for researchers in making generalizations about individuals with LD based on data collected from a specific group of subjects in a single study. Rather than attempt to address these challenges by including equivalent subject groups, however, it is common in LD research for studies to lack appropriate comparison groups (e.g., only utilizing college students as subjects, or failing to include a comparison group without LD). This strategy is contrary to suggested guidelines for LD research, which recommend including participants both with and without LD (Durrant, 1993).

Two primary functions of LD research are to increase our knowledge in the area and to help those with LD (Cosden, 2003). The purpose of the present study was to increase our knowledge of factors that may impact success for young adults with LD, and in so doing, provide information that may help increase the chances of successful long-term outcomes for these individuals. The inclusion of young adult participants with and without LD and not currently attending college is consistent with suggested guidelines for research with LD samples (Corley & Taymans, 2002; Durrant, 1993; Estrada, Dupoux, & Wolman, 2006). In addition, the use of objective, standardized measures to assess coping strategies, locus of control, and quality of life in a sample of young adults with and

without LD will contribute to the generalizability of obtained results. Finally, the inclusion of measures to investigate possible “protective factors” is in keeping with the current direction of LD research.

Background

The concept of learning disability has a long history in the clinical and empirical literature (see Mather & Goldstein, 2001 for a review). Suggested links between academic underachievement and neurobiological causes first arose in the early part of the twentieth century (Fletcher et al., 2001; Mather & Goldstein, 2001). This link was initially proposed by physicians, the first group of professionals to study the pattern of specific academic weaknesses in individuals who demonstrated overall average intellectual functioning (Lyon, 1996a).

The actual term “learning disability” did not appear until the early 1960s, after which time it rapidly gained acceptance (Fletcher et al., 2001). LD was established as a special education classification, thus mandating individualized instructional services (Fletcher et al., 2001; Lyon, 1996a). Between 1960 and 1975, several notable advances were made in addressing LD issues (Hallahan & Mercer, 2001). For example, LD advocacy and support groups were formed. In addition, educators began to develop instructional strategies and programs specifically for students with LD that aimed to remediate visual and visual-motor difficulties. However, these strategies were found to be largely ineffective.

The field of LD continued to make further advances in the mid-1970s. Because of the ineffectiveness of the remediation strategies that were in use at the time, researchers began to examine other areas thought to be related to LD (e.g., social

competence, cognitive processing, attention problems, and curriculum-based assessment) in an effort to identify more useful methods of remediation (Hallahan & Mercer, 2001).

Until recently, the effectiveness of the various strategies in improving academic skills deficits for students with LD has been difficult to determine due to the many possible contributing factors to treatment outcome (e.g., a student's previous instruction, general development, level of teacher training, and/or type of remediation strategy; Lyon, 1996b). However, beginning in the late 1980s, researchers began conducting longitudinal intervention studies designed to identify and describe the best instructional strategies for students with LD (Lyon, 1996b).

These studies have resulted in a repertoire of effective remediation techniques for LD in reading, written expression, and mathematics. For example, instruction in phonological awareness, decoding, and word recognition has been shown to be effective in addressing reading deficits (Lyon, 1996b). More specifically, in addressing reading deficits, instructional methods including oral reading techniques, repeated reading, language enrichment programs, whole language approach, phonological processing, and guided reading comprehension techniques have been found to be more effective than less directive approaches such as working on student motivation (Silver & Hagin, 2002). A recent review indicated that effective reading instruction must include the components of training in phonological awareness, phonics instruction that is linked to spelling, and practice in oral reading (Lovett et al., 2000; Olson, Wise, Ring, & Johnson, 1997; Torgesen, Wagner, & Rashotte, 1997).

Given the heterogeneity of the LD population, there is no one single specific instructional method considered most effective for all LD students; rather, there are some

general guiding principles in developing instructional strategies (Silver & Hagin, 2002; Zigmond, 2003). One general principle is that students with LD require intensive instruction (Zigmond, 2003). More specifically, techniques such as modeling, fast pace, guided feedback, and over rehearsal have been shown to be effective (Fuchs & Fuchs, 2003).

For writing remediation, successful intervention strategies include the use of graphic organizers and computers as well as an emphasis on the mechanics of written expression and specific instruction in organizing ideas (Silver & Hagin, 2002). In mathematics, verbal concepts need to be supplemented through the use of manipulatives, models, and practical examples (Etheredge, 2000; Silver & Hagin, 2002). In mathematical problem solving, modeling, fast pace, guided feedback through small groups and peer-mediated activity, and self-regulation procedures such as goal setting and self-scoring are useful in improving students' abilities (Fuchs & Fuchs, 2003).

Prevalence. Almost half of all students who qualify for special education services in the United States meet criteria for LD (U.S. Department of Education, 2000), with approximately six percent of public school students ages six to seventeen classified as having LD (U.S. Department of Education, 2004). In Alabama, the total count of students (ages 3-21) classified as LD as of December 2005 was 41,714, making up the largest group of any exceptionality (State of Alabama Department of Education, 2005).

Between 1977 and 1999, the number of students with LD in the United States increased by over 100% (Hallahan & Mercer, 2001). This increase may reflect children being misdiagnosed as LD due to confusion and differences in diagnostic practice (Hallahan & Mercer, 2001; Kavale, 2001; Lyon, 1996b). Other possible

explanations for the higher prevalence include increased awareness of LD on the part of parents and teachers, the use of broader definitional criteria, overreferral by teachers, and inconsistent identification practices across disciplines (Lyon, 1996b). However, the end result of an increased identification rate is that more students are receiving services in the school setting (Kavale & Forness, 2003), even though one should not assume that these services are effective given the lag between research findings and proper teacher training and implementation.

Definition. Despite considerable research and attention devoted to the study of LD, significant controversy remains surrounding the establishment of a theoretically based classification system and a specific, standardized definition (Lyon, 1996a). Since 1976, the “discrepancy approach” has been the principal criterion used in defining LD (Kavale, 2001). This approach typically involves comparing a student’s scores on standardized achievement tests to his or her predicted achievement, the latter being determined by measures of intellectual ability (Mather & Goldstein, 2001). Another common method for operationalizing a significant discrepancy involves examining grade-equivalent scores on measures of academic achievement (e.g., a student would qualify if he or she is 2 years below current grade level; Mercer, Jordan, Allsopp, & Mercer, 1996).

The application of the discrepancy model has been widely criticized on a number of levels, including differences across states and school districts in the method used to define a discrepancy, possible flaws in the research used to support the discrepancy approach, and difficulty using the discrepancy approach to identify very young children as having LD (Hallahan & Mercer, 2001; Kavale, 2001; Kavale, Holdnack, & Mostert,

2006; Lyon, 1996b; Mather & Goldstein, 2001). Kavale (2001) emphasized that although there are some problems with the discrepancy approach, it is still a useful criterion when applied correctly and should be used as a key component in a comprehensive assessment process.

Concerns about the discrepancy model have led many in the field to support a more broad-based approach to the identification of LD. Silver and Hagin presented several goals of LD diagnosis: “(a) to understand the causes of the disorder in an individual child; (b) to delineate the specific abilities and disabilities of the child; (c) to evaluate the environmental supports available; (d) to guide intervention processes; (e) to provide some idea of prognosis; and (f) to set timelines for reevaluation” (2002, p. 142). Fletcher et al. (2001) asserted the need to devise a new way of classifying LD that incorporates inclusionary definitions, takes into account a student’s response to intervention, and emphasizes outcomes. Others suggested that rather than relying solely on the discrepancy model, professionals should also utilize informal assessments (such as teacher ratings of phonological processing skills, visual and motor processing skills, and letter formation) within the context of a comprehensive evaluation (e.g., Mather & Goldstein, 2001).

In response to concerns related to the discrepancy model for identifying LD, the responsiveness-to-intervention (or more commonly, “RTI”) model, has been proposed as a new method for identifying students with specific learning disabilities (Kavale et al., 2006). RTI is commonly conceptualized as a multi-step identification process that would ultimately result in students being identified as LD if they fail to respond to scientifically-based classroom interventions. RTI is also not without a significant amount of

controversy, as it is a fairly new approach with relatively few related empirical investigations to support it (see Scruggs & Mastropieri, 2002 for an excellent review).

Individual Factors and LD

The negative factors associated with LD for school-age children have been investigated extensively. When compared to their non-LD peers, children with LD demonstrate more socioemotional difficulties (Al-Yagon & Mikulincer, 2004; Tsatsanis, Fuerst, & Rourke, 1997) and behavior problems (Handwerk & Marshall, 1998; Tsatsanis et al., 1997; Vaughn, Zaragoza, Hogan, & Walker, 1993). For children diagnosed with LD, a comorbid diagnosis of Attention-Deficit/Hyperactivity Disorder (ADHD) occurs between 40% and 80% of the time (Robins, 1992), while for children with a diagnosis of ADHD, 30% to 60% also have a diagnosis of LD (Tarnowski & Nay, 1989). Adolescents with LD are also more likely to be classified as chemically dependent based on self-report measures than their peers without LD (Karacostas & Fisher, 1993) and to be overrepresented among groups of adolescents and adults who require substance abuse treatment (although the exact nature of the relationship between LD and substance abuse is still unclear; Cosden, 2001). According to the U.S. Department of Education (2004), 35% of students with LD will drop out of high school, which is more than twice that of their non-LD peers.

Children with LD are often less accepted by their peers (Vaughn et al., 1993). In a meta-analysis of studies related to social skills in children with LD, Swanson and Malone (1992) found that, overall, children with LD are less socially accepted than their peers and are more often rated by teachers as socially immature. When children with LD are compared to peer groups of average and low achieving students, they have been found to

demonstrate poorer social skills (Tur-Kaspa, 2002; Vaughn et al., 1993), and higher levels of peer rejection (LaGreca & Stone, 1990a; Tur-Kaspa, 2002; Vaughn, Elbaum, & Schumm, 1996), lower peer acceptance (Vaughn et al., 1996; Vaughn et al., 1993), and are rated by their teachers as demonstrating significantly more behavioral problems (Tur-Kaspa, 2002; Vaughn et al., 1993). In addition, they report poorer academic self-concept (Cooley & Ayres, 1988; Gans, Kenny, & Ghany, 2003; Harter, Whitesell, & Junkin, 1998; Tabassan & Grainger, 2002; Vaughn et al., 1996), and more negative self-perception (LaGreca & Stone, 1990b).

Given the apparent impact that LD has on children's social, behavioral, and emotional functioning, it is not surprising that these students continue to experience significant difficulties into young adulthood (Ginsberg, Gerber, & Reiff, 1993; Hall et al., 2002; Minskoff, 1993; Raskind et al., 1999), and it is generally accepted that LD can affect individuals throughout the lifespan, in multiple arenas (Goldberg, Higgins, Raskind, & Herman, 2003; Murray & Greenberg, 2006; Vogel, 1993). The increasing prevalence of LD in the United States and the emerging understanding of the sequelae of the disorder have resulted in efforts to identify possible protective factors that may ameliorate the effects of LD and improve an individual's chances for achieving long-term success.

These protective factors have included individual characteristics such as locus of control (Hall et al., 2002; Rojewski, 1999), goal-directedness and goal setting (Raskind et al., 1999; Spekman, Goldberg, & Herman, 1992), need for achievement (Hall et al., 2002), coping skills (Spekman et al., 1992), and self-esteem (Rojewski, 1999). Researchers have also investigated variables related to the high school experiences of

young adults with LD, such as students' participation in transition planning (Benz et al., 2000; Halpern et al., 1995; Hitchings, Luzzo, Ristow, & Horvath, 2001), high school preparation and performance (Halpern et al., 1995; Hitchings et al., 2001; Miller, Rzonca, & Snider, 1991; Vogel & Adelman, 1992), student satisfaction with high school instruction (Halpern et al., 1995), and educational aspirations while in high school (Rojewski, 1999).

Coping. Given that LD is a long-term challenge, young adults with LD should learn ways of adapting to and coping with the struggles that often go along with an LD diagnosis (Reiff & Ginsberg, 1995). Individuals with LD frequently have to face additional "life stressors" associated with their LD (Spekman et al., 1992).

Coping is often described as a heterogeneous concept that involves a multitude of possible strategies, thoughts, and behaviors (Schwarzer & Schwarzer, 1996). Coping consists of a person's efforts to deal with a stressor or threat including behavior and/or thoughts, and must include an individual's evaluation of the stressful situation (Schwarzer & Schwarzer, 1996). Lazarus defined coping as ". . . cognitive and behavioral efforts to manage specific external or internal demands (and conflicts between them) that are appraised as taxing or exceeding the resources of a person" (1991, p. 112).

One popular conceptualization of coping was first described by Folkman and Lazarus (1980), which categorizes specific coping strategies as problem-focused, emotion-focused, or a combination of the two. Problem-focused coping involves problem-solving or performing a specific action aimed at changing the source of the stressor, while emotion-focused coping includes strategies intended to lessen the emotional distress caused by the stressor (Carver, Scheier, & Weintraub, 1989).

Individuals often utilize both forms of coping when dealing with stressors; however, problem-focused coping is predominantly applied when a person believes that there are specific steps that can be taken to address the stressor, whereas emotion-focused coping is predominant when the stressor is perceived as long-standing (Folkman & Lazarus, 1980).

Carver et al. (1989) asserted that classifying coping skills based on just these two factors is likely overly simplistic and does not adequately represent the complex nature of coping. Essentially, they maintain that there are several distinct “activities” within each of these two types of coping. For example, the problem-focused coping process might include planning, taking action, and/or obtaining help from others. Similarly, emotion-focused coping “responses” may include positive reframing, denial, and/or seeking social support. The authors also indicated that some methods of coping with stress may actually be maladaptive. These include mental and behavioral disengagement and denial of the stressful event.

The possible relationship between coping skills and successful outcomes has been previously investigated in samples of young adults with LD. For example, Gerber et al. (1992) examined factors related to employment success in a sample of adults with LD who were characterized as “highly successful.” They found that for many participants, obtaining control of their own lives was a predominant theme in their efforts aimed at achieving success. This “pursuit of control” was based on different ways of adapting to situations, including coping strategies (assessed through a qualitative interview). The young adults with LD classified as successful had developed ways to overcome challenges associated with their specific disability. They demonstrated significant

adaptability and learned creativity. Learned creativity includes the various strategies and techniques developed by the successful adults to enhance their ability to perform well. Because this study only included participants characterized by the researchers as “highly successful,” the findings cannot be generalized to those adults with LD who do not achieve similar levels of success. In addition, generalizability is further limited by the failure to include a control group of participants without LD.

Spekman et al. (1992) identified coping skills as an important factor in differentiating between young adults with LD who were characterized as “successful” and other young adults with LD. Coping skills were assessed during a qualitative interview. The authors indicated that those participants who were placed in the successful group had developed effective methods of coping with stress. They further concluded that coping skills were related to the ability to overcome life’s challenges associated with LD. Although this study provides important information related to the coping skills of young adults with LD, it is difficult to generalize these findings due to the qualitative nature of the assessment of coping skills used in this study. In addition, as in the study described above, subjects only included young adults with LD, with no comparison group of young adults without LD.

Locus of Control. In the early LD literature, locus of control was defined as a cognitive expectancy that delineated an individual’s perception of causal factors related to a particular outcome (Rotter, 1966). Specifically, those who have an internal locus of control view events as a consequence of their own actions, while those with an external locus of control perceive events as unrelated to their actions (Weiner, 1986). Locus of control frequently has been investigated as a possible protective factor (Hall et al., 2002),

and an internal locus of control has been shown to contribute to resilience in various at-risk populations (Blocker & Copeland, 1994; Wyman, Cowen, Work, & Kerley, 1993).

In relation to academic performance, students who have an internal locus of control tend to be more achievement-oriented (Volkmer & Feather, 1991) and tend to demonstrate higher levels of academic achievement than their peers with external locus of control (Cone & Owens, 1991; Maqsud & Rouhani, 1991; Millar & Irving, 1995; Nunn & Nunn, 1993; Onwuegbuzie & Daley, 1998; Phares, 1976; Rose, Hall, Boles, & Webster, 1996). Students with an internal locus of control attribute academic failure or success to internal factors and tend to exert more control over their academic behavior (Choi, 1998).

In one explanatory model, as students become more competent in their academic self-regulation, their levels of self-efficacy increase (Borkowski, Carr, Rellinger, & Pressley, 1990). Students are said to be self-regulating when they actively attempt to control their learning environment (e.g., by allowing enough time for studying, seeking out physical environments that are most conducive to studying, and asking for help from tutors or peer helpers; Brooks, Nolan, & Gallagher, 2000). As their belief that they can control their level of performance and environment in particular contexts (or self-efficacy) improves, students attribute their success to their own efforts and they develop a more internal locus of control related their academic success (Borkowski et al., 1990). Self-efficacy perceptions affect an individual's selection of activity, task perseverance, amount of effort expended, and degree of success achieved (Klassen, 2002).

Hall et al. (2002) found no significant differences between undergraduate students with and without LD on a measure of locus of control. Both groups demonstrated

moderate locus of control scores, suggesting that the students were balanced in their locus of control and perceived that they had control over some situations and not in others. Rojewski (1999) assessed locus of control in a sample of young adults with and without LD as part of a longitudinal study. The locus of control measure consisted of six items that were similar to items used in a measure developed by Rotter (1966). Acceptable levels of reliability and validity were reported. However, locus of control was measured only for participants when they were in the 12th grade. Other researchers have found that those with LD are more likely to have an external locus of control, suggesting that repeated academic failure may have some relationship with perceived control over life events (Borkowski et al., 1990; Werner & Smith, 2001).

In a meta-analysis of studies examining locus of control in students with LD, Mamlin, Harris, and Case (2001) concluded that differences in results may be due to methodological flaws in studies examining locus of control within the LD population. These include failure to describe adequately the sample used in studies, inclusion of participants with comorbid behavior disorders, and division of students into groups based on questionable criteria.

Definitions of Success

Success is not a unidimensional construct and is not an absolute state. Rather, a person can obtain different degrees of success in different areas, and his or her level of success can change over time (Spekman et al., 1992). Evaluations of success can be influenced by changes in the economic and social environments, as well as an evaluator's educational level and socioeconomic status (Spekman et al., 1992). Success has been defined in various studies with young adults as graduation from high school (Benz et al.,

2000), college academic performance (Benz et al., 2000; Hall et al., 2002; Heiman & Precel, 2003; Murray et al., 2000; Vogel & Adelman, 1992), participation in postsecondary education (Halpern et al., 1995; Murray et al., 2000; Rojewski, 1999), and employment status (Raskind et al., 1999; Rojewski, 1999).

An individual's overall level of satisfaction with his or her life (i.e., quality of life) has also been suggested as an important component of any evaluation of success (Spekman et al., 1992). Quality of life has been defined as "an individual's subjective evaluation of the degree to which his or her most important needs, goals, and wishes have been fulfilled; life satisfaction along with positive and negative affect are viewed as components of the broader construct of subjective well being or happiness" (Frisch, Cornell, Villanueva, & Retzlaff, 1992, p. 93). This conceptualization also includes the idea that "an individual's overall life satisfaction consists largely of the sum of satisfactions in particular areas of life deemed important" (Frisch et al., 1992, p. 93). Quality of life should be viewed as a subjective experience that is significantly influenced by the experiences of an individual, and should include variables such as community activities, relationships, physical and material well-being, and personal development (Schalock, 1996).

There is no single definition of quality of life applicable to persons with or without disabilities (Dennis, Williams, Giangreco, & Cloninger, 1993). However, for individuals with disabilities, there are generally three domains that are included in discussions of quality of life. These include physical and material well-being, performance of adult roles, and a sense of personal fulfillment (Halpern, 1993). Although performance of adult roles can be measured objectively by others, a person's

physical and mental well-being and his or her personal fulfillment are matters of subjective interpretation, from an individual's own viewpoint. Overall, quality of life is a subjective experience and is a concept that is meaningless if it is separate from a person's own feelings and experiences (Halpern, 1993). Thus, assessment of a person's quality of life should include not only a person's satisfaction with a particular area of his or her life, but also how important that person considers the area (Frisch et al., 1992).

Rationale for the Current Study

Traditionally, research in the field of LD has focused on the nature of the deficits associated with the diagnosis (a "deficient" model; Margalit, 2003). However, recent research efforts in the field of LD demonstrate a shift towards developing an understanding of factors that may contribute to competence and long-term success for individuals with LD (Benz, Lindstrom, & Yovanoff, 2000; Halpern, Yovanoff, Doren, & Benz, 1995; McDermott, Goldberg, Watkins, Stanley, & Glutting, 2006; Raskind, Goldberg, Higgins, & Herman, 1999; Rojewski, 1999). This "success-oriented" approach is important in furthering understanding of the best ways to promote positive outcomes for young adults with LD (Hall, Spruill, & Webster, 2002; Raskind, Goldberg, Higgins, & Herman, 2002). Although this approach has fostered an increasing amount of research, we still have much to learn regarding the contributing factors that will allow young adults with LD to experience success, independence, and life satisfaction (Cosden, 2003; Horowitz, 2006; Wong, 2003). For example, although coping skills (Spekman et al., 1992) and locus of control (Hall et al., 2002; Rojewski, 1999) have been investigated as possible protective factors for young adults with LD, the majority of research examining locus of control and coping skills in relation to LD has been conducted with

children and adolescents (e.g., Al-Yagon & Mikulincer, 2004; Hagborg, 1996; Tsatsanis et al., 1997; see also Mamlin et al., 2001 for a review). Thus, one goal of the current study was to add to the knowledge regarding young adults with LD from a success-oriented perspective.

In addition, although the studies conducted to date have certainly made valuable contributions to what we know about young adults with LD, the lack of appropriate control groups lessens their impact. Several studies did not include comparison groups of young adults without LD (Benz et al., 2000; Halpern et al., 1995; Miller et al., 1991), while in other projects, samples are limited to college students with LD (without comparison groups of students without LD) (Spekman et al., 1992). Researchers in the field of LD are in agreement regarding the importance of appropriate comparison groups (Dickinson & Verbeek, 2002; Hall et al., 2002; Miller et al., 1991; Raskind, Gerber, Goldberg, Higgins, & Herman, 1998; Vogel & Adelman, 1992). The current study addressed previous oversights in research design by including participants both with and without LD.

The impetus for the design of the current study was also influenced by the need to include standardized and well-supported measures of the variables of interest. For example, the Adult Nowicki-Strickland Internal-External Scale (ANSIE) was selected as the measure of locus of control. The ANSIE is the locus of control scale used more often in investigations of adults with LD, and thus was deemed most appropriate in order to be able to compare results with previous studies. In addition, the ANSIE is the most frequently utilized instrument in well-designed investigations with people with mild intellectual disabilities (Dixon, 2003). The ANSIE's fifth-grade reading level maximized

the likelihood that comprehension would not be an impediment for participants, particularly those with LD.

The Quality of Life Inventory (QOLI) was chosen due to its development based on an empirically validated model of life satisfaction. The sixth-grade reading level also makes it an appropriate instrument for use in the current study. Other measures of quality of life are designed specifically for those with intellectual disabilities (Cummins, 1997) or have not been found to measure the quality of life construct adequately (Ager, 1998).

The Coping Orientation to Problem Experience (COPE) Inventory was judged to be the most appropriate measure of coping strategies due to its supportive psychometric characteristics (Carver et al., 1989; Phelps & Jarvis, 1994), particularly with young adults (Carver et al., 1989; Eklund, Grove, & Heard, 1998; Greenberger & McLaughlin, 1998). In addition, the ability to assess participants' coping strategies from a dispositional perspective allows for the ability to make conclusions about participants' typical coping strategies, as compared to other measures that are situational in nature (Beckham & Adams, 1984).

Goals and Hypotheses

The primary goal of the study was to compare a sample of young adults with LD who were not college graduates and were not attending college to a similar group of young adults without LD, in a number of areas. I was interested in identifying any significant differences between the groups in the ways they typically coped with stressful events. Additional goals of the study were to describe differences in the tendency of participants with and without LD to report a more internal or external conceptualization of locus of control, as well as in self-reported life satisfaction and self-perceived success.

I was also interested in investigating the relationship between maladaptive coping styles and locus of control.

It was hypothesized that LD participants would demonstrate a more external locus of control and lower life satisfaction (quality of life) than young adults without LD. I anticipated that young adults with LD would rate themselves as less successful than young adults without LD. I also predicted that participants who reported a more external locus of control would demonstrate higher scores on scales of a coping inventory that represent maladaptive coping styles.

METHOD

Participants

Thirteen young adults were included in the LD group and were matched with thirteen (from a group of thirty) participants without LD. In order to take part in the study, participants were required to be between the ages of 19 and 25 years of age and had either graduated from high school or had obtained a High School Equivalency Diploma. In addition, they could not be college graduates and could not be attending college at the time of their participation in the study. In addition, participants were screened for socioeconomic status (SES) at the time of their initial contact with the principal investigator (PI). Inclusion in the study was restricted to those individuals who fell in the three middle categories of SES while those in the upper-most and lower-most categories were not eligible to participate (Hollingshead & Redlich, 1957).

Individuals recruited for participation in the LD group had to meet additional criteria. They must have been diagnosed as LD as the result of a detailed psychoeducational evaluation (including individually administered, standardized intelligence and academic achievement tests). In addition, LD must have been the primary disability under which they received special education services, and they must have had an overall IQ of 90 or above. Participants were matched as closely as possible between groups on the variables of sex, race, age (within 1-2 years), and SES. Table 1 depicts the outcome of this matching, which successfully equated the groups.

Participant recruitment. Recruitment of participants without LD was achieved through community advertisement in Birmingham, Montgomery, Auburn, and Opelika. Fliers were posted in local area businesses to advertise the research opportunity, and included a toll-free number for those interested in contacting the principal investigator (PI). None of the participants with LD responded to community recruitment. Thus, a targeted recruitment method was used that involved contacting special education coordinators, special educators, assistant superintendents, and superintendents of public school systems across the state of Alabama. In addition, contact was made with staff at several private schools for students with LD, as well as vocational rehabilitation and job training programs for young adults. In all, over 40 organizations were contacted regarding the study.

Staff members at Alabama school systems who agreed to assist with the study were asked to search their special education files in order to identify former students who met inclusion criteria for the LD group. Once those students were identified, school personnel mailed a cover letter and flier to them. Schools were reimbursed for postage and mailing supplies. More than 400 letters were mailed out to potential participants in the LD group who met the inclusion criteria.

Compensation. All participants had an opportunity to be selected for a one-hundred-dollar gift certificate to Wal-Mart. Following receipt of their completed survey packet, participants were entered in a drawing for a chance to win the gift certificate. Two gift certificates were available (one for each group). In addition, participants in the LD group received a \$20 gift certificate to Wal-Mart for their participation.

Materials

Informed consent. At the time of the participants' initial contact by telephone, potential participants were briefed on the nature of the study, were asked several questions in order to determine their appropriateness for research participation (e.g., age, college status, etc.), and were invited to ask any questions regarding the study. Qualified participants were mailed a survey packet, including pre-addressed and stamped envelopes in which to return the questionnaires to the PI. The time required to complete the entire questionnaire packet was estimated to be approximately 30 to 45 minutes.

Demographic questionnaire. A demographic questionnaire (Appendix A) was included in order to confirm the information collected during the initial telephone contact, as well as to obtain more detailed information. This form included questions regarding participants' occupational and educational status, race, age, and sex. Socioeconomic status (SES) was determined using the Hollingshead Two-Factor Index of Social Position (based on occupation and educational status of major wage earner; Hollingshead & Redlich, 1957). Questions were also presented regarding participants' self-perceived success.

Participants in the LD group completed a more detailed questionnaire (Appendix B) that included questions concerning their age at time of diagnosis of LD, type of LD, if LD was their primary disability, what other disabilities/diagnoses they may have previously received, and if other disabilities (such as hearing or vision loss, physical handicap, or behavioral/emotional difficulty) were more significant than the LD. In addition, they were asked about the degree to which they participated in the development of their transition plan.

Coping Orientation to Problem Experience (COPE) Inventory. This standardized measure of coping (Carver et al., 1989) evaluates a wide range of coping responses and includes fifteen scales based on four items each (see Appendix C). The items were framed in terms of what the individual usually does when dealing with stress. Development of the COPE Inventory was guided by the Lazarus model of stress and coping and a model of behavioral self-regulation. The 15 scales are conceptually distinct and include items to assess activities associated with both problem-focused and emotion-focused coping. In addition, five of the scales have been suggested as representing “maladaptive” coping strategies (Deisinger, Cassisi, & Whitaker, 2003). A score is obtained for each of the 15 scales, allowing for a determination of the types of coping an individual uses most often.

Respondents are asked to provide answers based on a Likert scale from “1” (*I usually don't do this at all*) to “4” (*I usually do this a lot*) when they experience a stressful event. Sample items include, “I discuss my feelings with someone,” “I just give up trying to reach my goal,” and “I try to come up with a strategy about what to do.” Carver et al. (1989) reported generally acceptable Cronbach’s alpha reliability coefficients with the initial standardization sample of 978 undergraduates (ranging from .62 to .92), with the exception of the mental disengagement scale ($r = .45$). Similarly, Phelps and Jarvis (1994) found alpha reliability coefficients ranging from .66 to .83, with the exception of the mental disengagement scale ($r = .51$). Evidence of both convergent and discriminant validity have also been reported for the COPE Inventory (Carver et al., 1989).

Other researchers have also found supportive psychometric characteristics for the

majority of the COPE scales with samples including college students (Carver et al., 1989; Greenberger & McLaughlin, 1998), young athletes (Eklund et al., 1998), men diagnosed with HIV (Antoni, Esterling, Lutgendorf, Fletcher, & Schneiderman, 1995), and women diagnosed with breast cancer (Carver et al., 1993). Deisinger et al. (2003) found similar results to Carver et al.'s 1989 study with their sample of participants drawn from the community.

Adult Nowicki-Strickland Internal-External Scale. All participants completed the Adult Nowicki-Strickland Internal-External (ANSIE) scale, a 40-item measure developed to assess the nature of a person's attributional style, internal or external (Nowicki & Duke, 1974). Possible scores range from 0 to 40, with higher scores reflecting a more external locus of control while lower scores indicate a more internal locus of control. Development of items was based on Rotter's internal-external conceptualization of locus of control (Mamlin, Harris, & Case, 2001). The authors indicated that the test items "describe reinforcement situations across interpersonal and motivational areas such as affiliation, achievement, and dependency" (Nowicki & Strickland, 1973, p. 149). Sample items include, "Do you believe that whether or not people like you depends on how you act?" and "Do you believe that when bad things are going to happen they are just going to happen no matter what you try to do to stop them?" (see Appendix D for a complete listing of items).

Nowicki and Duke (1974) reported split-half reliabilities of .74 to .86 in 12 studies; they also reported satisfactory convergent validity (.68) with Rotter's scale. Ishiyama, McClure, Hart, and Amico (1999) found a Cronbach's alpha coefficient of .85 with a sample of college students. Other authors have also utilized the ANSIE with high

school students (Miller, Fitch, & Marshall, 2003; Shepherd, Fitch, Owen, & Marshall, 2006), college students (Lane, 2002; Ohlson, 2003; Rose et al., 1996), nursing students (Marra, 1997), college students who are academically at-risk (Nieves, 2000), and adults from the general population (Gregory, 1996; Laptosky, 2002). The ANSIE has also been included in investigations of locus of control with adults with mental retardation (Dixon, Marsh, & Craven, 2003; Wehmeyer, 1993). Wehmeyer, Palmer, Agran, Mithaug, and Martin (2000) utilized the ANSIE with adolescents who had been diagnosed with mental retardation, learning disabilities, or emotional/behavioral disorders.

Quality of Life Inventory. Participants also completed the Quality of Life Inventory (QOLI; Frisch et al., 1992) in order to obtain an objective assessment of their self-perceived life satisfaction. The QOLI is a self-report measure that assesses a person's life satisfaction in sixteen different areas, and is based on an empirically validated model of life satisfaction positing that a person's overall life satisfaction mainly consists of the sum of satisfactions in specific areas (Frisch et al., 1992). The QOLI includes an overall score of life satisfaction based on 16 different important areas of life (Health, Self-Esteem, Goals and Values, Money, Work, Play, Learning, Creativity, Helping, Love, Friends, Children, Relatives, Home, Neighborhood, Community, Overall score) (see Appendix E for a sample QOLI protocol). Frisch et al. (1992) provided examples of reliability and validity testing for the QOLI. For example, test-retest reliability for the QOLI has ranged from .80 to .91, with internal consistency coefficients from .77 to .89 across three clinical and three nonclinical samples. A convergent validity coefficient of .60 was found for an undergraduate population with the Satisfaction with Life Scale. In addition, a general undergraduate sample had a significantly higher mean

QOLI score than a sample of college students who were receiving services at a university counseling center.

More recently, Frisch et al.(2005) provided positive evidence regarding the utility of the QOLI in measuring change related to treatment. Data were collected from a university counseling center and a substance abuse treatment program. In addition, clinical norms were presented for a sample obtained from a community mental health center.

RESULTS

It was expected that the participants with LD would demonstrate a more external locus of control than participants without LD. An independent samples t-test was conducted in order to examine group differences in locus of control as measured by the ANSIE. Contrary to expectations, no differences were found between the two groups, $t(24) = .08, p = .937$. The mean for the LD group was 20.15 ($SD = 5.41$) while the mean for the control group was 20.31 ($SD = 4.27$).

To test the hypothesis that the LD group would demonstrate lower scores than the non-LD group on a measure of quality of life, independent samples t-tests were performed. No differences were found between the two groups on the QOLI total score, $t(23) = -1.11, p = .277$. However, further examination of individual scales revealed that the groups were significantly different on the Goals and Values and Helping weighted satisfaction scores (Table 2). Analyses conducted at the individual item level for the Goals and Values and Helping scores suggest that the differences between groups resulted from the degree to which they reported being satisfied (versus degree of importance) in those areas of their life (refer to Appendix F for results from individual item analysis on the QOLI).

It was hypothesized that the LD group would report significantly lower levels of self-perceived success than the non-LD group. A MANOVA revealed no differences between the LD and control group for self-perceived success, as measured by the five

questions included on the demographic questionnaire, $Wilks' \lambda = .968$, $F(5, 20) = 0.13$, $p = .983$ (Table 3).

Independent t-tests were conducted in order to examine differences between the LD and control group on the scales of the COPE Inventory. All group comparisons were non-significant (Table 4).

In addition, independent t-tests were used to compare participants in the LD and non-LD groups on COPE clusters. No group differences were found in regard to tendency to use coping strategies described as maladaptive, emotion-focused, problem-focused, or related to the use of social supports as reported on the COPE.

In order to examine possible relationships between dependent variables, correlational analyses were conducted. First, Pearson (r) correlations were calculated in order to test the relationship between total locus of control score on the ANSIE and each weighted satisfaction score on the QOLI. Significant negative correlations were found for Health, Self-Esteem, Money, Neighborhood, and Community (Table 5).

Next, Pearson correlations were calculated to test the hypothesis that participants who reported a more external locus of control would be more likely to report using maladaptive coping strategies. The three COPE subscales that have been associated with an “avoidant” or maladaptive coping cluster, as well as the total Maladaptive cluster score, were compared with total locus of control score. A significant result was found between the Mental Disengagement scale and the ANSIE (Table 6).

DISCUSSION

The purpose of this study was to describe a sample of young adults with LD who were not college graduates and were not attending college in comparison to a similar group of young adults without LD. Variables of interest included locus of control, life satisfaction, self-perceived success, and coping. An additional goal of the study was to investigate the relationship between maladaptive coping styles and locus of control.

Contrary to prediction that participants with LD would demonstrate higher scores on the ANSIE (i.e., more external locus of control), no significant difference was seen between the two groups on this measure. This result is inconsistent with previous findings of an association between LD and tendency to demonstrate more external locus of control as compared to individuals without LD (Mamlin et al., 2001). However, findings from the present study are consistent with previous investigations in which college students with and without LD did not vary significantly on locus of control as measured by the ANSIE (Estrada et al., 2006; Hall et al., 2002; see also Harshbarger, 1998).

Participants with and without LD reported higher scores on the ANSIE than are typically described in the general literature (e.g., Cone & Owens, 1991; Hall et al., 2002; Nowicki & Duke, 1974; Rose et al., 1996). The generally higher scores on the ANSIE (i.e., more external locus of control) for both participant groups in the current study may be related to their non-college status. Participants' past experiences in school might help

to explain their elevated ANSIE scores, because a history of academic struggle has been found to be associated with a more external locus of control (Miller et al., 2003; Wehmeyer & Palmer, 1997). No data were collected to assess specifically participants' performance or experiences in school, and there may be several reasons to explain their decision not to attend college. However, it is reasonable to assume that participants in the LD group likely experienced some level of academic difficulty when in school associated with their learning difficulties. Participants in the non-LD group may also have experienced challenges in school that influenced their decision not to attend college.

Thus, for these participants, a history of school difficulty may have led them to be more likely to utilize the external orientation to events (e.g., "I keep trying in school but I'm failing anyway. There must not be anything I can do to improve my grades"). At the other end of the spectrum, those students who experience academic success are more likely to place more trust in their abilities, and will tend to take on more responsibility for their performance, consistent with an internal orientation (Nuñez, González-Pienda, González-Pumariega, Roces, Alvarez, & González, 2005).

Interestingly, results from a large sample of young adults participating in a follow-up study 2 years after high school identified a "profile" to describe those who were attending post-secondary institutions, including internal locus of control as a factor (Rojewski, 1999). In research with college students not identified as LD, internal LOC has been associated with higher college GPA (Day, 1999; Rose et al., 1996) and better study skills (Onwuegbuzie, 1998). However, Estrada et al. (2006) found that external locus of control was positively correlated with social and personal-emotional adjustment for college students with and without LD.

In further investigations of locus of control with young adults, it would be important to obtain objective measures of prior school performance as well as individuals' attributions related to their academic history. Future research examining locus of control and LD should include groups of college students (with and without LD), as well as non-college young adults, in order to more closely examine possible relationships between college attendance status and locus of control.

It was also predicted that participants who reported a more external locus of control would demonstrate higher scores on scales of a coping inventory that represent maladaptive coping styles. This prediction was partially supported via a significant correlation involving the Mental Disengagement scale. This scale involves using strategies such as sleeping, daydreaming, or self-distraction (e.g., watching television) in order to disengage from a goal with which a stressor is interfering. These activities can be construed as less internal than other coping strategies. If you are watching television or sleeping, you are not doing anything to actively address the stressor (or the goal with which it is interfering). Consistent with the current results, Brown (1998) found that college students who demonstrated internal locus of control were significantly less likely to utilize avoidant coping strategies when presented with challenges while studying abroad.

In contrast, other scales included on the COPE such as Active Coping, Planning, or Use of Social Support, involve more active strategies (e.g., "I ask people who have had similar experiences what they did," "I take direct action to get around the problem," "I think hard about what steps to take," "I try to come up with a strategy about what to do").

Active coping strategies such as these have been found to moderate the effects of stress on mental health and the immune system (Stowell, Kiecolt-Glaser, & Glaser, 2001).

The finding of a significant relationship between the Mental Disengagement scale and external locus of control is intuitive within the context of the locus of control framework. Those participants who have reported external locus of control feel that they have less control over personal outcomes; thus, they would be more likely to utilize a “passive” strategy to deal with stress. This notion is supported by Carver et al.’s (1989) finding that the denial and behavioral disengagement scales on the COPE are inversely related to feeling that one is able to do something about a stressful situation.

Significant negative correlations were found for Health, Self-Esteem, Money, Neighborhood, and Community weighted satisfaction scores on the QOLI and the ANSIE locus of control score. Thus, those participants reporting higher scores in these areas tended to score lower on the ANSIE (more internal locus of control) while participants with lower weighted satisfaction scores demonstrated more external locus of control on the ANSIE.

Interestingly, four of the five areas (Health, Money, Neighborhood, and Community) can be interpreted as areas that may lend themselves to change by an individual. So, if one is dissatisfied with health, he or she may be able to improve that area of his or her life by exercising more frequently or scheduling an appointment with a physician to discuss possible medications. Likewise, a less than ideal money situation may be improved by changing jobs or obtaining a second job. Dissatisfaction with neighborhood and community can be addressed by moving to another location. Participants with more external locus of control may feel that they have no control over

these areas of their lives while participants with internal locus of control have perhaps utilized their internal orientation to make changes to situations with which they were unhappy. This finding highlights a possible additional advantage of internal locus of control in addition to its well-substantiated benefit as a resilience factor in various at-risk populations (Blocker & Copeland, 1994; Wyman, Cowen, Work, & Kerley, 1993).

Contrary to predictions, disability status also did not predict participants' scores on overall quality of life (life satisfaction). No overall differences were found between the two groups on the QOLI total score, and scores for both groups fell in the "Average" range of life satisfaction (Frisch, 1994). These scores were similar to those reported by college students (Frisch et al., 1992) and undergraduate students following treatment at a university counseling center (Frisch et al., 2005). These results suggest that the young adults who participated in the current study are equally satisfied with their lives, overall, as those who attend college.

However, analysis of the weighted satisfaction scales on the QOLI did indicate a difference between LD and non-LD participants in the current study. Participants with LD were more satisfied with their goals and values and the helping that they do than the participants without LD (although there were no differences between groups on how *important* they rated these areas to their overall happiness). All of the participants with LD in the study reported receiving special education services in school; perhaps the focus on goals as part of individual education plans (IEPs) predisposed these participants to be more aware of setting forth specific goals (and therefore, being more satisfied with their goals in general).

The ability to set realistic and appropriate goals has been associated with success for adults with LD (Ginsberg et al., 1993; Raskind et al., 1999; Spekman et al., 1992). For example, Rowjewski (1999) identified high educational aspirations while in high school as a primary predictor of enrollment in postsecondary education two years later both for individuals with and without LD. As suggested by Ginsberg et al. (1993), adults with LD have the need to feel successful due to their history of challenging experiences in the academic setting. Setting realistic goals to work toward and then achieve leads to additional goal setting and goal-directed behavior (Corley & Taymans, 2002). The specific assistance participants with LD received as students (e.g., academic tutoring, individualized instruction, and access to other extra resources while in school) may have led to a greater appreciation for and value placed on helping others. In turn, perhaps participants with LD place more importance on helping others and make a concerted effort to do so, thus leading to their higher weighted satisfaction score in this area. Future investigations should more closely examine these two areas for individuals with LD.

Given previous research regarding generally poorer outcomes for individuals with LD, it was expected that the LD group would report significantly lower levels of self-perceived success than the non-LD group. However, no differences between the two groups were found as measured by the five questions on the demographic questionnaire, indicating that participants with and without LD view themselves as equally successful. As with general quality of life, this finding is a positive result for young adults with LD in that they considered themselves to be as successful as young adults without LD. However, as a group, only 6 of the 26 participants considered themselves to be “very successful.” Ten participants (38.5% of the total sample) responded that they considered

themselves “a little successful, but not as much as I would like,” and 10 answered, “as successful as most people.”

The current findings should be interpreted within the context of one single data collection point for these young adults. It is possible that their ratings of self-perceived success may improve in the future. Young adulthood is a transitional time and involves many significant life events (Levinson, 1978). Werner and Smith (2001) found an improvement in life satisfaction and self-acceptance for a sample of young adults with LD when participants were interviewed at age 18 and age 32. Future research should examine self-perceived success for young adults with LD in relation to age.

Some participants’ self-reports of success may also reflect general attitudes related to the need for a college degree. In a survey of public attitudes on higher education (Immerwahr, 2004), 87% of respondents indicated that a high school graduate should go to college after high school, and 76% indicated that obtaining a college education was more important than ten years prior to the survey. However, although respondents indicated that a college education was important, 61% also replied that there are numerous paths to career success without obtaining a college degree. Future research related to self-perceived success should include a college student sample to examine differences in self-perception of success between college students and those who are not attending college.

Limitations and Conclusions

The current study involves several limitations that should be addressed. First, and perhaps most importantly, the response rate to initial cover letters mailed out by the schools was quite low. In fact, less than 5% of former students in the LD sample who

were sent a cover letter from their school system replied by calling the PI. In an effort to increase recruitment efficiency, individuals were only sent cover letters if they met inclusion criteria for the LD group (e.g., diagnosed as LD as the result of a detailed psychoeducational evaluation, primary disability of LD, overall IQ of 90 or above, and high school graduate or equivalency diploma). Future research with young adults who are not easily contacted (i.e., not in college) will likely require targeted recruitment methods. Other methods that may increase response rates include telephone interviews, pre-paid incentives, additional follow-up for nonresponders (Larson & Poist, 2004), and research initiatives provided in the context of personally relevant services/support groups.

A possible explanation for the low response rate is that potential participants were not interested in completing surveys related to LD, given that they are not currently in school. Personal relevance of the topic of surveys has been suggested as a critical factor in whether individuals choose to complete a survey (Dillman, 1991; Goyder, 1982; Groves, Presser, & Dipko, 2004; Pearl & Fairley, 1985). Although LD is generally conceptualized as presenting life-long challenges, it is likely that young adults who are not currently in an academic environment may have distanced themselves from their LD diagnosis. Individuals with LD report the most stress related to their disability as children; LD-related stress significantly decreases in adulthood after they are no longer in an academic setting (Raskind et al., 1999).

Similarly, participants with LD may have been less likely to respond due to a perceived relationship between the PI and their former school. The cover letter informing potential participants of the study was required by Auburn University's Institutional Review Board for Research Including Human Subjects (IRB) to be printed on school

system letterhead. In addition, the text of the letter indicated that the school endorsed the study. If the young adults had negative experiences during high school with teachers or special education staff, or felt dissatisfied with their high school education, they might have been less likely to respond.

As a result of the low response rate, another limitation of the study is the small sample size and limitations placed on statistical procedures. Due to the small sample size, participants were not assigned to groups based on type of learning disability (e.g., reading, math, or written expression). Although this procedure is not rare for LD research, conclusions can only be made about young adults with LD in general, and not specific types of LD. The sample in the current study should not be considered representative of the general population of adults with LD. In addition, although individuals were matched between groups on demographic variables, the overall sample in the study was not representative of the general population in Alabama (U.S. Census Bureau, 2005) or the general LD population (U.S. Department of Education, 2004) in terms of gender and race. In addition, this study was limited to participants in the state of Alabama in order to control for method of LD determination and in order to have assistance from school systems in the state. However, the limited geographical region from which subjects were recruited should be kept in mind when interpreting and generalizing results.

The low response rate may have also impacted the results if the participants who chose to respond were systematically different from those who did not. For example, participants who responded were certainly more motivated to complete a survey as part

of a research project. Also, participants may have been more motivated by the possibility of financial compensation than those who did not respond.

Finally, the results of the study can only be generalized to young adults not attending college. Given the increasing importance placed on a college education (Immerwahr, 2004), as well as the increase in individuals with LD who are attending college, it would be important to replicate the current study with an appropriate comparison group of college students, both with and without LD.

Investigations examining other variables of interest for this population should include appropriate comparison groups. If participant samples are limited to college students, the results can only reasonably be generalized to college students, given that they have been found to differ in many ways from the general population (Christensen, 1991). Likewise, only including a sample of participants who have been diagnosed with LD, with no sample of participants without LD for comparison, limits what can be concluded about specific characteristics that may be associated with LD.

In summary, to date no study has systematically compared these young adults not in college, with and without LD, on the variables included in this study. Most importantly, keeping the above methodological caveats in mind, these two groups of participants with and without LD did not differ significantly on locus of control, overall life satisfaction, coping skills, or self-reported success. This finding serves as an important indicator that, for this limited sample of respondents, having been diagnosed with and receiving services for LD does not result in different outcomes on these measures when compared to young adults who had not been diagnosed with LD. Perhaps most encouragingly, participants with LD considered themselves as successful and were

as satisfied with their lives as participants without LD. Thus, results of the current study would support the “success-oriented” approach to research and intervention for individuals with LD (e.g., Hall et al., 2002; Raskind et al., 2002). Although a diagnosis of LD may correspond to deficits in academic skills and other areas, and can certainly impact many areas of an individual’s life, it should not be viewed as the defining characteristic of a person. Rather, individuals with learning disabilities should be regarded as possessing an array of strengths and weaknesses that can ideally be balanced in order to achieve contentment and success.

REFERENCES

- Ager, A. (1998). *The Life Experiences Checklist*, 2nd ed. NFER-Nelson, Windsor.
- Al-Yagon, M., & Mikulincer, M. (2004). Patterns of close relationships and socioemotional and academic adjustment among school-age children with learning disabilities. *Learning Disabilities Research & Practice, 19*, 12-19.
- Antoni, M. H., Esterling, B., Lutgendorf, S., Fletcher, M. A., & Schneiderman, N. (1995). Psychosocial stressors, herpes virus reactivation, and HIV-1 infection. In M. Stein & A. Baum (Eds.), *AIDS and oncology: Perspectives in behavioral medicine* (pp. 135-168). Mahwah, NJ: Erlbaum.
- Beckham, E. E., & Adams, R. L. (1984). Coping behavior in depression: report on a new scale. *Behavior Research Therapy, 22*, 71-75.
- Benz, M. R., Lindstrom, L., & Yovanoff, P. (2000). Improving graduation and employment outcomes of students with disabilities: Predictive factors and student perspectives. *Exceptional Children, 66*, 509-529.
- Blocker, L. S., & Copeland, E. P. (1994). Determinants of resilience in high-stressed youth. *The High School Journal, 77* (4), 286-293.
- Borkowski, J. G., Carr, M., Rellinger, L., & Pressley, M. (1990). Self-regulated cognition: Interdependence of metacognition, attributions, and self-esteem. In B. Jones & L. Idol (Eds.), *Dimensions of thinking and cognitive instruction* (pp. 53-92), Hillsdale, NJ: Erlbaum.

- Brooks, D. W., Nolan, D. E., & Gallagher, S. G. (2000). *Web-teaching* (chap. 9). Retrieved May 15, 2004 from <http://dwb.unl.edu/Book/Ch09/Chapter09w.html>
- Brown, H. E. (1998). Sojourner adjustment among undergraduate students: Relationship with locus of control and coping strategies. *Dissertation Abstracts International, 59*(4B). (ISBN No. 95020192)
- Carver, C. S., Pozo, C., Harris, S. D., Noriega, V., Scheier, M. F., Robinson, D. S., Ketcham, A. S., Moffat, F. L., & Clark, K. C. (1993). How coping mediates the effect of optimism on distress: A study of women with early stage breast cancer. *Journal of Personality and Social Psychology, 65*, 375-390.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*, 267-283.
- Choi, N. (1998). The effects of test format and locus of control on test anxiety. *Journal of College Student Development, 39*, 616-620.
- Christensen, L. W. (1991). *Experimental methodology* (5th ed.). Boston: Allyn and Bacon.
- Cone, A. L., & Owens, S. K. (1991). Academic and locus of control enhancement in a freshman study skills and college adjustment course. *Psychological Reports, 68*, 1211-1217.
- Cooley, E. J., & Ayres, R. R. (1988). Self-concept and success-failure attributions of nonhandicapped students and students with learning disabilities. *Journal of Learning Disabilities, 21*, 174-178.
- Corley, M. A., & Taymans, J. M. (2002). Adults with learning disabilities: A review of

- the literature. In J. Comings, B. Garner, C. Smith (Eds.), *The annual review of adult learning and literacy*, Volume 3 (pp. 44-83). San Francisco: Jossey-Bass.
- Cosden, M. (2001). Risk and resilience for substance abuse among adolescents and adults with LD. *Journal of Learning Disabilities*, 34, 352-358.
- Cosden, M. (2003). Response to Wong's article. *Learning Disabilities Research & Practice*, 18, 87-89.
- Cummins, R. A. (1997). Assessing quality of life for people with disabilities. In R. I. Brown (Ed.), *Quality of life for handicapped people*, 2nd Ed., (pp. 116-150). Cheltenham, England: Stanley Thomas.
- Deisinger, J. A., Cassisi, J. E., & Whitaker, S. L. (2003). Relationships between coping style and PAI profiles in a community sample. *Journal of Clinical Psychology*, 59, 1315-1323.
- Dennis, R. E., Williams, W., Giangreco, M. F., & Cloninger, C. J. (1993). Quality of life as context for planning and evaluation of services for people with disabilities. *Exceptional Children*, 59, 499-512.
- Dillman, D. A. (1991). The design and administration of mail surveys. *Annual Review of Sociology*, 17, 225-249.
- Dickinson, D. L., & Verbeek, R. L. (2002). Wage differentials between college graduates with and without learning disabilities. *Journal of Learning Disabilities*, 35, 175-184.
- Dixon, R. M., Marsh, H. W., & Craven, R. G. (2003, November). The self: How does it relate to locus of control, quality of life and adaptive behaviour for people with

mild intellectual disabilities? Paper presented at NZARE AARE, Auckland, New Zealand.

Durrant, J. E. (1993). A decade of research on learning disabilities: A report card on the state of the literature. *Journal of Learning Disabilities, 27*, 25-33.

Eklund, R. C., Grove, J. R., & Heard, N. P. (1998). The measurement of slump-related coping: Factorial validity of the COPE and modified-COPE inventories. *Journal of Sport and Exercise Psychology, 20*, 157-175.

Estrada, L., Dupoux, E., & Wolman, C. (2006). The relationship between locus of control and personal-emotional adjustment and social adjustment to college life in students with and without learning disabilities. *College Student Journal, 40*, 43-54.

Etheredge, S. (2000). Word problems: A structure-plus-writing approach. *Perspectives, 26*, 22-25.

Fletcher, J. M., Lyon, G. R., Barnes, M., Stuebing, K. K., Francis, D. J. Olson, R. K., et al. (2001, August). *Building a foundation for the future*. Paper presented at the Learning Disabilities Summit, Washington, DC.

Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior, 21*, 219-239.

Frisch, M. B. (1994). *Manual and treatment guide for the Quality of Life Inventory (QOLI)*. Minneapolis, MN: National Computer Systems.

Frisch, M. B., Clark, M. P., Rouse, S. V., Rudd, M. D., Paweleck, J. K., Greenstone, A., & Kopplin, D. A. (2005). Predictive and treatment validity of life satisfaction and the Quality of Life Inventory. *Assessment, 12*, 66-78.

- Frisch, M. B., Cornell, J., Villanueva, M., & Retzlaff, P. J. (1992). Clinical validation of the Quality of Life Inventory: A measure of life satisfaction for use in treatment planning and outcome assessment. *Psychological Assessment, 4*, 92-101.
- Fuchs, L. S., & Fuchs, D. (2003). Enhancing the mathematical problem solving of students with mathematics disabilities. In H. L. Swanson, K. R. Harris, & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 306-322). New York: Guilford Press.
- Gans, A. M., Kenny, M. C., & Ghany, D. L. (2003). Comparing the self-concept of students with and without learning disabilities. *Journal of Learning Disabilities, 36*, 287-295.
- Gerber, P., Ginsberg, R., & Reiff, H. B. (1992). Identifying alterable patterns of vocational success in highly successful adults with learning disabilities. *Journal of Learning Disabilities, 25*, 475-487.
- Ginsberg, R., Gerber, P. J., & Reiff, H. B. (1993). Employment success for people with learning disabilities. In P. J. Gerber & H. B. Reiff (Eds.), *Learning disabilities in adulthood: Persisting problems and evolving issues* (pp. 204-213). Boston: Andover Medical Publishers.
- Goldberg, R. J., Higgins, E. L., Raskind, M. H., & Herman, K. L. (2003). Predictors of success in individuals with learning disabilities: A qualitative analysis of a 20-year longitudinal study. *Learning Disabilities Research & Practice, 18*, 222-236.
- Goyder, J. (1982). Further evidence on factors affecting response rates to mailed questionnaires. *American Sociological Review, 47*, 550-553.

- Greenberger, E., & McLaughlin, C. S. (1998). Attachment, coping, and explanatory style in late adolescence. *Journal of Youth and Adolescence*, 27, 121-139.
- Gregory, J. V. (1996). Revivifying archetypal selfobject functioning in hypnotic trance: An integrative approach for early intervention in a brief therapy mode. *Dissertation Abstracts International*, 58 (09), 5119B. (ISBN No. 0591600366)
- Groves, R. M., Presser, S., & Dipko, S. (2004). The role of topic interest in survey participation decisions. *Public Opinion Quarterly*, 68, 2-31.
- Hagborg, W. J. (1996). Self-concept and middle school students with learning disabilities: A comparison of scholastic competence subgroups. *Learning Disability Quarterly*, 19, 117-126.
- Hall, C. W., Spruill, K. L., & Webster, R. E. (2002). Motivational and attitudinal factors in college students with and without learning disabilities. *Learning Disability Quarterly*, 25, 79-86.
- Hallahan, D. P., & Mercer, C. D. (2001, August). *Learning disabilities: Historical perspectives*. Paper presented at the Learning Disabilities Summit, Washington, D.C. (ERIC Document Reproduction Service No. ED458756)
- Halpern, A. S. (1993). Quality of life as a conceptual framework for evaluating transition outcomes. *Exceptional Children*, 59, 486-488.
- Halpern, A. S., Yovanoff, P., Doren, B., & Benz, M. R. (1995). Predicting participation in postsecondary education for school leavers with disabilities. *Exceptional Children*, 62, 151-164.
- Handwerk, M. L., & Marshall, R. M. (1998). Behavioral and emotional problems of

- students with learning disabilities, serious emotional disturbance, or both conditions. *Journal of Learning Disabilities*, 31, 327-338.
- Harshbarger, J. P. (1998). An examination of the self-esteem, locus of control, and integrated time perspective of college students with learning disabilities. *Dissertation Abstracts International*, 59 (5B), 5119B. (ISBN No. 95022268)
- Harter, S., Whitesell, N. R., & Junkin, L. J. (1998). Similarities and differences in domain-specific and global self-evaluations of learning-disabled, behaviorally disordered, and normally achieving adolescents. *American Educational Research Journal*, 35, 653-680.
- Heiman, T., & Precel, K. (2003). Students with learning disabilities in higher education: Academic strategies profile. *Journal of Learning Disabilities*, 36, 248-258.
- Hitchings, W. E., Luzzo, D. A., Ristow, R., & Horvath, M. (2001). The career development needs of college students with learning disabilities: In their own words. *Learning Disabilities Research and Practice*, 16, 8-17.
- Hollingshead, A. B., & Redlich, F. C. (1957). *Two-factor index of social position*. New Haven, CT: The authors.
- Horowitz, S. (2006). *Research Roundup*. Retrieved July 30, 2006 from National Center for Learning Disabilities: <http://www.nclld.org/index2.php>
- Immerwahr, J. (2004). *Public attitudes on higher education: A trend analysis, 1993 to 2003*. Retrieved August 15, 2006 from the National Center for Public Policy and Higher Education Web site: <http://www.highereducation.org/reports/pubatt/>
- Ishiyama, J. T., McClure, M., Hart, H., & Amico, J. (1999). Critical thinking disposition

- and locus of control as predictors of evaluations of teaching strategies. *College Student Journal*, 33, 269-273.
- Karacostas, D. D., & Fisher, G. L. (1993). Chemical dependency in students with and without learning disabilities. *Journal of Learning Disabilities*, 26, 491-495.
- Kavale, K. A. (2001, August). *Discrepancy models in the identification of learning disability*. Building a foundation for the future. Paper presented at the Learning Disabilities Summit, Washington, DC.
- Kavale, K. A., & Forness, S. R. (2003). Learning disability as a discipline. In H. L. Swanson, K. R. Harris, & S. Graham (Eds), *Handbook of learning disabilities* (pp. 76-93). New York: Guilford.
- Kavale, K. A., Holdnack, J. A., & Mostert, M. P. (2006). Responsiveness to intervention and the identification of specific learning disability: A critique and alternative proposal. *Learning Disability Quarterly*, 29, 113-127.
- King-Sears, M. E., Boudah, D. J., Goodwin, M., Raskind, M., & Swanson, H. L. (2004). Timely and compelling research for the field of learning disabilities: Implications for the future. *Learning Disability Quarterly*, 27, 1-12.
- Klassen, R. (2002). A question of calibration: A review of the self-efficacy beliefs of students with learning disabilities. *Learning Disability Quarterly*, 25, 88-102.
- Lane, M. R. (2002). The effects of dreamwork and cognitive restructuring groups on the locus of control and self-awareness of female college athletes. *Dissertation Abstracts International*, 63 (03), 869A. (ISBN No. 0493620540)
- Laptosky, G. (2002). Locus of control and type of reinforcement as factors in human

- response to noncontingency. *Dissertation Abstracts International*, 62 (09), 4205B. (ISBN No. 0493380868).
- Larson, P. D., & Poist, R. F. (2004, Fall). Improving response rates to mail surveys: A research note. *Transportation Journal*, 67-74.
- Lazarus, R. S. (1991). *Emotion and adaptation*. London: Oxford University Press.
- La Greca, A. M., & Stone, W. L. (1990a). LD status and achievement: Confounding variables in the study of children's social status, self-esteem, and behavioral functioning. *Journal of Learning Disabilities*, 23, 483-490.
- La Greca, A. M., & Stone, W. L. (1990b). Children with learning disabilities: The role of achievement in their social, personal, and behavioral functioning. In H. L. Swanson & B. K. Keogh (Eds.), *Learning disabilities: Theoretical and research issues* (pp. 333-352). Hillsdale, NJ: Erlbaum.
- Levinson, D. (1978). *The seasons of a man's life*. New York: Ballantine.
- Lovett, M. W., Lacerenza, L., Borden, S. L., Frijters, J. C., Steinbach, K. A., & DePalma, M. (2000). Components of effective remediation for developmental reading disabilities: Combining phonological and strategy-based instruction to improve outcomes. *Journal of Educational Psychology*, 92, 263-283.
- Lyon, G. R. (1996a). Learning disabilities. In E. J. Mash & R. A. Barkley (Eds.), *Child psychopathology* (pp. 390-435). New York: Guilford Press.
- Lyon, G. R. (1996b). Learning disabilities. *Special Education for Students with Disabilities*, 6, 54-76.
- Mamlin, N., Harris, K. R., & Case, L. P. (2001). A methodological analysis of research on locus of control and learning disabilities: Rethinking a common assumption.

Journal of Special Education, 34, 214-225.

Maqsud, M., & Rouhani, S. (1991). Relationships between socioeconomic status, locus of control, self-concept, and academic achievement of Batswana adolescents.

Journal of Youth and Adolescence, 20, 107-114.

Margalit, M. (2003). Resilience model among individuals with learning disabilities: Proximal and distant influences. *Learning Disabilities Research and Practice, 18, 82-86.*

Marra, S. E. (1997). An exploration of critical thinking, learning style, locus of control, and environmental perception in baccalaureate nursing students. *Dissertation Abstracts International, 58 (03), 1215B.* (ISBN No. 0591368285)

Mather, N., & Goldstein, S. (2001). *Learning disabilities and challenging behaviors: A guide to intervention and classroom management.* Baltimore, MD: Paul H. Brookes Publishing.

McDermott, P. A., Goldberg, M. M., Watkins, M. W., Stanley, J. L., & Glutting, J. J. (2006). A nationwide epidemiologic modeling study of LD: Risk, protection, and unintended impact. *Journal of Learning Disabilities, 39, 230-251.*

Mercer, C. D., Jordan, L., Allsop, D. H., & Mercer, A. R. (1996). Learning disabilities definitions and criteria used by state education departments. *Learning Disability Quarterly, 19, 217-232.*

Millar, R., & Irving, P. (1995). Academic locus of control in British undergraduate students. *British Journal of Educational Psychology, 65, 331-340.*

Miller, C. A., Fitch, T., & Marshall, J. L. (2003). Locus of control and at-risk youth: A

- comparison of regular education high school students and students in alternative schools. *Education, 123*, 548-551.
- Miller, R. J., Rzonca, C., & Snider, B. (1991). Variables related to the type of postsecondary education experience chosen by young adults with learning disabilities. *Journal of Learning Disabilities, 24*, 188-191.
- Minskoff, E. H. (1993). Post-secondary education and vocational training: Keys to success for adults with learning disabilities. In P. J. Gerber & H. B. Reiff (Eds.), *Learning disabilities in adulthood: Persisting problems and evolving issues* (pp. 111-120). Boston: Andover Medical Publishers.
- 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 and Practice, 15*, 119-127.
- Murray, C., & Greenberg, M. T. (2006). Examining the importance of social relationships and social contexts in the lives of children with high-incidence disabilities. *The Journal of Special Education, 39*, 220-233.
- Nieves, E. E. (2000). The impact of perception of modeling history, self-esteem, locus of control, and fear of failure on the academic continuance and achievement of academically at-risk college students. *Dissertation Abstracts International, 61* (01), 106A. (ISBN No. 0599617047)
- Nowicki, S., & Duke, M. P. (1974). A locus of control scale for college as well as non-college adults. *Journal of Personality Assessment, 38*, 136-137.
- Nowicki, S., & Strickland, B. R. (1973). A locus of control scale for children. *Journal of Consulting and Clinical Psychology, 40*, 148-154.

- Nuñez, J. C., González-Pienda, J. A., González-Pumariega, S., Roces, C., Alvarez, L., & González, P. (2005). Subgroups of attributional profiles in students with learning difficulties and their relation to self-concept and academic goals. *Learning Disabilities Research & Practice, 20*, 86-97.
- Nunn, G. D., & Nunn, S. J. (1993). Locus of control and school performance: Some implications for teachers. *Education, 113*, 636-640.
- Olson, R. K., Wise, B., Ring, J., & Johnson, M. (1997). Computer-based remedial training in phoneme awareness and phonological decoding: Effects on the posttraining development of word recognition. *Scientific Studies of Reading, 1*, 235-254.
- Onwuegbuzie, A. J., & Daley, C. E. (1998). Study skills of undergraduates as a function of academic locus of control, self-perception, and social interdependence. *Psychological Reports, 83*, 595-598.
- Pearl, D. K., & Fairley, D. (1985). Testing for the potential for nonresponse bias in sample surveys. *Public Opinion Quarterly, 49*, 553-560.
- Phares, E. J. (1976). *Locus of control in personality*. Morristown, NJ: General Learning Press.
- Phelps, S. B., & Jarvis, P. A. (1994). Coping in adolescence: Empirical evidence for a theoretically based approach to assessing coping. *Journal of Youth and Adolescence, 23*, 359-371.
- Raskind, M. H., Gerber, P. J., Goldberg, R. J., Higgins, E. L., & Herman, K. L. (1998). Longitudinal research in learning disabilities: Report on an international

- symposium. *Journal of Learning Disabilities*, 31, 266-277.
- 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 20-year longitudinal study. *Learning Disabilities Research and Practice*, 14, 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, 201-208.
- Reiff, H. B., & Ginsberg, R. (1995). New perspectives on teaching from successful adults with learning disabilities. *Remedial and Special Education*, 16, 29-37.
- Robins, P. M. (1992). A comparison of behavioral and attentional functioning in children diagnosed as hyperactive or learning disabled. *Journal of Abnormal Child Psychology*, 20, 65-82.
- Rojewski, J. W. (1999). Occupational and educational aspirations and attainment of young adults with and without LD two years after high school completion. *Journal of Learning Disabilities*, 32, 533-552.
- Rose, R. J., Hall, C. W., Boles, L. M., & Webster, R. E. (1996). Locus of control and college students’ approaches to learning. *Psychological Reports*, 79, 163-171.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 80, (No. 609).
- 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* (pp. 123-139). Washington, DC: American Association on Mental

Retardation.

- Schwarzer, R., & Schwarzer, C. (1996). A critical survey of coping instruments. In M. Zeidner & N. S. Endler (Eds.), *Handbook of coping* (pp. 107-132). New York: Wiley.
- Scruggs, T. E., & Mastropieri, M. A. (2002). On babies and bathwater: Addressing the problems of identification of learning disabilities. *Learning Disabilities Quarterly*, 25, 155-168.
- Shapiro, J., & Rich, R. (1999). *Facing learning disabilities in the adult years*. New York: Oxford University Press.
- Shepherd, S., Fitch, T. J., Owen, D., & Marshall, J. L. (2006). Locus of control and academic achievement in high school students. *Psychological Reports*, 98, 318-322.
- Silver, A. A., & Hagin, R. A. (2002). *Disorders of learning in childhood* (2nd ed.). New York: Wiley & Sons.
- 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 adult years. *Learning Disabilities Research and Practice*, 7, 161-170.
- State of Alabama Department of Education, Special Education Services. (2006, June 6). *State total count of children by age (3-21) by exceptionality as of Dec. 1, 2005*. Retrieved August 5, 2006, from http://www.alsde.edu/html/sections/doc_download.asp?section=65&id=4813&sort=12
- Stowell, J. R., Kiecolt-Glaser, J. K., & Glaser, R. (2001). Perceived stress and cellular

- immunity: When coping counts. *Journal of Behavioral Medicine*, 24, 323-339.
- Swanson, H. L., & Malone, S. (1992). Social skills and learning disabilities: A meta-analysis of the literature. *School Psychology Review*, 21, 427-441.
- Tabassam, W., & Grainger, J. (2002). Self-concept, attributional style and self-efficacy beliefs of students with learning disabilities with and without attention-deficit/hyperactivity disorder. *Learning Disability Quarterly*, 25, 141-151.
- Tarnowski, K. J., & Nay, S. M. (1989). Locus of control in children with learning disabilities and hyperactivity: A subgroup analysis. *Journal of Learning Disabilities*, 22, 381-383.
- Torgesen, J. K., Wagner, R. K., & Rashotte, C. A. (1997). Approaches to the prevention and remediation of phonologically-based reading disabilities. In B. A. Blachman (Ed.), *Foundations of reading acquisition and dyslexia: Implications for early intervention* (pp. 287-304). Mahwah, NJ: Erlbaum.
- Tsatsanis, K. D., Fuerst, D. R., & Rourke, B. P. (1997). Psychosocial dimensions of learning disabilities: External validation and relationship with age and academic functioning. *Journal of Learning Disabilities*, 30, 490-502.
- Tur-Kaspa, H. (2002). The socioemotional adjustment of adolescents with LD in the Kibbutz during high school transition periods. *Journal of Learning Disabilities*, 35, 87-96.
- United States Census Bureau. (n.d.). *2005 American Community Survey*. Retrieved September 9, 2006, from <http://factfinder.census.gov/servlet/ACSSAFFacts?>
- United States Department of Education, Office of Special Education Programs. (2004). *Twenty-Sixth Annual Report to Congress on the Implementation of the Individuals*

with Disabilities Education Act. Retrieved September 9, 2006, from
<http://www.ed.gov/about/reports/annual/osep/2004/index.html>

- United States Department of Education, National Center for Education Statistics. (2000).
Postsecondary students with disabilities: Enrollment, services, and persistence
(NCES Publication No. 2000-092). Jessup, MD: Education Publications Center.
- Vaughn, S., Elbaum, B. E., & Schumm, J. S. (1996). The effects of inclusion on the
social functioning of students with learning disabilities. *Journal of Learning
Disabilities, 29*, 598-698.
- Vaughn, S., Zaragoza, N., Hogan, A., & Walker, J. (1993). A four-year longitudinal
investigation of the social skills and behavior problems of students with learning
disabilities. *Journal of Learning Disabilities, 26*, 404-412.
- Vogel, S. A. (1993). A retrospective and prospective view of postsecondary education
for adults with learning disabilities. In S. A. Vogel & P. B. Adelman (Eds.),
Success for college students with learning disabilities (pp. 3-20). New York:
Springer-Verlag.
- Vogel, S. A., & Adelman, P. B. (1992). The success of college students with learning
disabilities: Factors related to educational attainment. *Journal of Learning
Disabilities, 25*, 430-441.
- Volkmer, R. E., & Feather, N. T. (1991). Relations between Type A scores, internal
locus of control and test anxiety. *Personality and Individual Differences, 12*, 205-
209.
- Wehmeyer, M. L. (1993). Factor structure and construct validity of a locus of control
scale with individuals with mental retardation. *Educational and Psychological*

Measurement, 53, 1055-1066.

Wehmeyer, M. L., & Palmer, S. B. (1997). Perceptions of control of students with and without cognitive disabilities. *Psychological Reports*, 81, 195-206.

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. *Exceptional Children*, 66, 439-453.

Weiner, B. (1986). *An attributional theory of motivation and emotion*. New York: Springer-Verlag.

Werner, E. E. (1993). Risk and resilience in individuals with learning disabilities: Lessons learned from the Kauai longitudinal study. *Learning Disabilities Research & Practice*, 8, 28-34.

Werner, E. E., & Smith, R. S. (2001). *Journeys from childhood to midlife: Risk, resilience, and recovery*. Ithaca, NY: Cornell University Press.

Wong, B. Y. L. (2003). General and specific issues for researchers' consideration in applying the risk and resilience framework to the social domain of learning disabilities. *Learning Disabilities Research & Practice*, 18, 68-76.

Wyman, P. A., Cowen, E. L., Work, W. C., & Kerley, J. H. (1993). The role of children's future expectations in self-esteem functioning and adjustment to life stress: A prospective study of urban at-risk children. *Development and Psychopathology*, 5, 649-661.

Zigmond, N. (2003). Searching for the most effective service delivery model for students with learning disabilities. In H. L. Swanson, K. R. Harris, & S. Graham (Eds), *Handbook of learning disabilities* (pp. 110-122). New York: Guilford Press.

Table 1. Participant Demographics

	LD Group (n = 13)	Control Group (n = 13)	χ^2 or <i>t</i>
Sex			0.20
Male	3	4	
Female	10	9	
Race			0.38
African-American	1	2	
Caucasian	12	11	
Age			1.44
Mean	21.16	22.40	
(<i>SD</i>)	(2.0)	(2.37)	
SES			-1.11
Mean	50.46	47.00	
(<i>SD</i>)	(7.56)	(8.31)	

Table 2. Group Differences on the Quality of Life Inventory

	LD Group (n = 13)		Control Group (n = 13)		<i>t</i>	<i>p</i>
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)		
QOLI Total Score	50.42	(7.81)	47.77	(12.21)	-1.11	.277
Weighted Satisfaction						
Health	1.54	(3.21)	1.85	(2.73)	.26	.795
Self-Esteem	1.08	(3.40)	2.54	(2.18)	1.30	.205
Goals and Values	4.17	(2.12)	1.62	(2.69)	-2.67	.013
Money	.38	(2.40)	.23	(3.52)	-.13	.897
Work	1.77	(2.80)	2.69	(2.84)	.83	.412
Play	3.92	(1.66)	3.62	(2.40)	-.38	.707
Learning	2.77	(2.09)	1.62	(2.36)	-1.32	.200
Creativity	2.69	(1.93)	2.38	(2.18)	-.38	.707
Helping	3.83	(2.23)	1.62	(2.50)	-2.40	.025
Love	4.00	(2.16)	4.15	(3.51)	.14	.894
Friends	3.62	(1.90)	3.23	(2.80)	-.41	.686
Children	2.67	(2.31)	2.08	(3.17)	-.53	.603
Relatives	4.31	(2.18)	3.38	(3.69)	-.78	.444
Home	3.08	(2.02)	1.77	(4.21)	-1.01	.326
Neighborhood	1.77	(2.77)	1.85	(3.53)	.06	.951
Community	1.00	(2.31)	2.08	(3.86)	.86	.397

Note: Weighted satisfaction scores on the QOLI are computed by multiplying the scores from the importance and satisfaction questions in each area. For the Children weighted satisfaction score and QOLI Total score, n=12 in the LD group due to one participant's incomplete data.

Table 3. Group Comparison on Self-Reported Success

Questionnaire Item	LD Group (n = 13)		Control Group (n = 13)	
	<i>M</i>	<i>(SD)</i>	<i>M</i>	<i>(SD)</i>
Overall	1.77	(.73)	1.92	(.86)
Work/career	1.69	(.95)	1.85	(1.07)
School	1.77	(.60)	1.92	(.86)
Family Relationships	2.54	(.66)	2.38	(.77)
Personal Relationships	2.38	(.65)	2.46	(.78)

Table 4. Group Comparison on the COPE Inventory

Cluster/Scale	LD Group (n = 13)		Control Group (n = 13)		<i>t</i>	<i>p</i>
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)		
Maladaptive	26.00	(8.60)	24.46	(7.82)	-.44	.638
Mental disengagement	10.15	(2.70)	10.62	(2.82)	.43	.674
Behavioral disengagement	8.23	(3.22)	7.00	(2.77)	-1.05	.306
Denial	7.62	(4.52)	6.85	(3.36)	-.49	.627
Problem-Focused	30.54	(5.85)	31.38	(4.77)	.40	.690
Active coping	10.54	(2.07)	10.46	(2.03)	-.10	.924
Planning	10.23	(2.42)	11.23	(1.74)	1.21	.238
Suppression of activities	9.77	(2.20)	9.69	(2.21)	-.09	.930
Emotion-Focused	31.46	(4.94)	31.54	(4.75)	.04	.968
Positive reinterpretation/growth	11.69	(2.66)	11.38	(2.63)	-.30	.769
Acceptance	10.31	(1.61)	10.92	(2.47)	.76	.458
Restraint	9.46	(2.17)	9.23	(2.39)	-.26	.796
Social Support	31.62	(7.93)	32.85	(7.09)	.42	.680
Focus on/venting of emotions	10.54	(2.60)	9.85	(3.56)	-.57	.576
Use of instrumental social support	10.85	(2.94)	11.46	(2.67)	.56	.581
Use of emotional support	10.23	(3.59)	11.54	(2.88)	1.03	.315
Religious coping	10.67	(4.12)	10.38	(3.80)	-.18	.86
Humor	9.23	(3.32)	10.08	(3.66)	.62	.543
Substance use	5.38	(2.76)	6.77	(4.44)	.96	.349

Note: n=12 for the LD group Religious coping scale due to one participant's missing data.

Table 5. Correlation of QOLI Weighted Satisfaction Scales and ANSIE Total Locus of Control

	Correlation with ANSIE	
	<i>r</i>	<i>p</i>
Weighted Satisfaction		
Health	-.44	.024
Self-Esteem	-.42	.031
Goals and values	.22	.285
Money	-.64	.000
Work	-.34	.094
Play	.24	.254
Learning	.12	.56
Creativity	.37	.07
Helping	-.01	.99
Love	-.23	.26
Friends	.15	.47
Children	.30	.15
Relatives	-.32	.12
Home	-.12	.57
Neighborhood	-.398	.044
Community	-.598	.001

N = 26 with the exception of *Children* (n = 25 due to one respondent's omission of this item).

Table 6. Correlation of COPE Maladaptive Cluster/Subscales and ANSIE Total Locus of Control

Cluster/Subscales	Correlation with ANSIE	
	<i>r</i>	<i>p</i>
COPE Maladaptive Cluster Score	.339	.090
Denial	.285	.158
Mental Disengagement	.446	.022
Behavioral Disengagement	.137	.504

N = 26

APPENDIX A
MEASURES

Participant Questionnaire (LD)

_____ Participant Number

(For Administrative Use Only)

Date of Birth _____ Race _____ Gender _____

Current Occupation _____

Person who is primary financial support (check one): Parent Self Other

Occupation of person who is primary financial support: _____

Years of education completed of person who is primary financial support: _____

Have you ever been diagnosed with a learning disability? Yes No

Did you graduate from high school? Yes No

Year of high school graduation: _____

Type of diploma received (check one):

Regular Advanced Occupational

Please answer the following questions:

When were you first diagnosed with LD? _____

What was the specific diagnosis?
(e.g., LD in reading, math, or written expression) _____

Was there ever a change in your diagnosis? Yes No

If so, what was the change? _____

If you received Special Education Services in school, what was the primary reason you received services? (e.g., LD, ADHD, vision impairment, etc.)

In high school, was there a plan developed to help you make the transition to work or college?
 Yes No

If so, to what extent did you feel like you contributed to your transition plan?

- Very Much
- Somewhat
- A Little
- Not at All
- I Don't Remember

Please answer the following questions:

(check only one for each item)

1. Do you consider yourself to be successful?

- Yes, very successful
- As successful as most people
- A little successful, but not as much as I would like
- No, I'm not successful

2. How successful do you consider yourself to be in the following areas?

Work/Career

- Very successful
- As successful as most people
- A little successful, but not as much as I would like
- Not successful

School

- Very successful
- As successful as most people
- A little successful, but not as much as I would like
- Not successful

Family Relationships

- Very successful
- As successful as most people
- A little successful, but not as much as I would like
- Not successful

Personal Relationships

- Very successful
- As successful as most people
- A little successful, but not as much as I would like
- Not successful

Participant Questionnaire (Non-LD)

_____ Participant Number

(For Administrative Use Only)

Date of Birth _____ Race _____ Gender _____

Current Occupation _____

Person who is primary financial support (check one): Parent Self Other

Occupation of person who is primary financial support: _____

Years of education completed of person who is primary financial support: _____

Have you ever been diagnosed with a learning disability? Yes No

Did you graduate from high school? Yes No

Year of high school graduation: _____

Type of diploma received (check one):

Regular Advanced Occupational

Please answer the following questions:

(check only one for each item)

1. Do you consider yourself to be successful?

- Yes, very successful
- As successful as most people
- A little successful, but not as much as I would like
- No, I'm not successful

How successful do you consider yourself to be in the following areas?

Work/Career

- Very successful
- As successful as most people
- A little successful, but not as much as I would like
- Not successful

School

- Very successful
- As successful as most people

- _____ A little successful, but not as much as I would like
- _____ Not successful

Family Relationships

- _____ Very successful
- _____ As successful as most people
- _____ A little successful, but not as much as I would like
- _____ Not successful

Personal Relationships

- _____ Very successful
- _____ As successful as most people
- _____ A little successful, but not as much as I would like
- _____ Not successful

COPE Inventory

We are interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress. Then respond to each of the following items by circling one number on for each, using the response choices listed just below.

Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully, and make your answers as true FOR YOU as you can. Please answer every item. There are no "right" or "wrong" answers, so choose the most accurate answer for YOU--not what you think "most people" would say or do. Indicate what YOU usually do when YOU experience a stressful event.

- 1 = I usually don't do this at all
- 2 = I usually do this a little bit
- 3 = I usually do this a medium amount
- 4 = I usually do this a lot

1. I try to grow as a person as a result of the experience. 1 2 3 4
2. I turn to work or other substitute activities to take my mind off things. 1 2 3 4
3. I get upset and let my emotions out. 1 2 3 4
4. I try to get advice from someone about what to do. 1 2 3 4
5. I concentrate my efforts on doing something about it. 1 2 3 4
6. I say to myself "this isn't real." 1 2 3 4
7. I put my trust in God. 1 2 3 4
8. I laugh about the situation. 1 2 3 4

9. I admit to myself that I can't deal with it, and quit trying. 1 2 3 4
10. I restrain myself from doing anything too quickly. 1 2 3 4
11. I discuss my feelings with someone. 1 2 3 4
12. I use alcohol or drugs to make myself feel better. 1 2 3 4
13. I get used to the idea that it happened. 1 2 3 4
14. I talk to someone to find out more about the situation. 1 2 3 4
15. I keep myself from getting distracted by other thoughts or activities. 1 2 3 4
16. I daydream about things other than this. 1 2 3 4
17. I get upset, and am really aware of it. 1 2 3 4
18. I seek God's help. 1 2 3 4
19. I make a plan of action. 1 2 3 4
20. I make jokes about it. 1 2 3 4
21. I accept that this has happened and that it can't be changed. 1 2 3 4
22. I hold off doing anything about it until the situation permits. 1 2 3 4
23. I try to get emotional support from friends or relatives. 1 2 3 4
24. I just give up trying to reach my goal. 1 2 3 4
25. I take additional action to try to get rid of the problem. 1 2 3 4
26. I try to lose myself for a while by drinking alcohol or taking drugs. 1 2 3 4
27. I refuse to believe that it has happened. 1 2 3 4
28. I let my feelings out. 1 2 3 4
29. I try to see it in a different light, to make it seem more positive. 1 2 3 4

30. I talk to someone who could do something concrete
about the problem. 1 2 3 4
31. I sleep more than usual. 1 2 3 4
32. I try to come up with a strategy about what to do. 1 2 3 4
33. I focus on dealing with this problem, and if necessary let other things
slide a little. 1 2 3 4
34. I get sympathy and understanding from someone. 1 2 3 4
35. I drink alcohol or take drugs, in order to think about it less. 1 2 3 4
36. I kid around about it. 1 2 3 4
37. I give up the attempt to get what I want. 1 2 3 4
38. I look for something good in what is happening. 1 2 3 4
39. I think about how I might best handle the problem. 1 2 3 4
40. I pretend that it hasn't really happened. 1 2 3 4
41. I make sure not to make matters worse by acting too soon. 1 2 3 4
42. I try hard to prevent other things from interfering with
my efforts at dealing with this. 1 2 3 4
43. I go to movies or watch TV, to think about it less. 1 2 3 4
44. I accept the reality of the fact that it happened. 1 2 3 4
45. I ask people who have had similar experiences what they did. 1 2 3 4
46. I feel a lot of emotional distress and I find myself
expressing those feelings a lot. 1 2 3 4
47. I take direct action to get around the problem. 1 2 3 4

- | | |
|---|---------|
| 48. I try to find comfort in my religion. | 1 2 3 4 |
| 49. I force myself to wait for the right time to do something. | 1 2 3 4 |
| 50. I make fun of the situation. | 1 2 3 4 |
| 51. I reduce the amount of effort I'm putting into solving the problem. | 1 2 3 4 |
| 52. I talk to someone about how I feel. | 1 2 3 4 |
| 53. I use alcohol or drugs to help me get through it. | 1 2 3 4 |
| 54. I learn to live with it. | 1 2 3 4 |
| 55. I put aside other activities in order to concentrate on this. | 1 2 3 4 |
| 56. I think hard about what steps to take. | 1 2 3 4 |
| 57. I act as though it hasn't even happened. | 1 2 3 4 |
| 58. I do what has to be done, one step at a time. | 1 2 3 4 |
| 59. I learn something from the experience. | 1 2 3 4 |
| 60. I pray more than usual. | 1 2 3 4 |

Adult Nowicki-Strickland Locus of Control Scale

Please answer the following questions:

1. Do you believe that most problems will solve themselves if you just don't fool with them?
Y N
2. Do you believe that you can stop yourself from catching a cold?
Y N
3. Are some people just born lucky?
Y N
4. Most of the time do you feel that getting good grades meant a great deal to you?
Y N
5. Are you often blamed for things that just aren't your fault?
Y N
6. Do you believe that if somebody studies hard enough he or she can pass any subject?
Y N
7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?
Y N
8. Do you feel that if things start out well in the morning that it's going to be a good day matter what you do?
Y N

9. Do you feel that most of the time parents listen to what their children have to say?
Y N
10. Do you believe that wishing can make good things happen?
Y N
11. When you get punished does it usually seem it's for no good reason at all?
Y N
12. Most of the time do you find it hard to change a friend's mind?
Y N
13. Do you think that cheering more than luck helps a team to win?
Y N
14. Did you feel that it was nearly impossible to change your parent's mind about anything?
Y N
15. Do you believe that parents should allow children to make most of their own decisions?
Y N
16. Do you feel that when you do something wrong there's very little you can do to make it right?
Y N
17. Do you believe that most people are just born good at sports?
Y N
18. Are most of the other people your age stronger than you are?
Y N

19. Do you feel that one of the best ways to handle most problems is just not to think about them?
Y N
20. Do you feel that you have a lot of choice in deciding whom your friends are?
Y N
21. If you find a four leaf clover, do you believe that it might bring you luck?
Y N
22. Did you often feel that whether or not you did your homework had much to do with what kind of grades you got?
Y N
23. Do you feel that when a person your age is angry at you, there's little you can do to stop him or her?
Y N
24. Have you ever had a good luck charm?
Y N
25. Do you believe that whether or not people like you depends on how you act?
Y N
26. Did your parents usually help you if you asked them to?
Y N
27. Have you felt that when people were angry with you it was usually for no reason at all?
Y N
28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?
Y N

29. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them?
Y N
30. Do you think that people can get their own way if they just keep trying?
Y N
31. Most of the time do you find it useless to try to get your own way at home?
Y N
32. Do you feel that when good things happen they happen because of good work?
Y N
33. Do you feel that when somebody your age wants to be your enemy there's little you can do to change matters?
Y N
34. Do you feel that it's easy to get friends to do what you want them to do?
Y N
35. Do you usually feel that you have little to say about what you get to eat at home?
Y N
36. Do you feel that when someone doesn't like you there's little you can do about it?
Y N
37. Did you usually feel that it was almost useless to try in school because most other children were just plain smarter than you are?
Y N
38. Are you the kind of person who believes that planning ahead makes things turn out better?
Y N

39. Most of the time, do you feel that you have little to say about what your family decides to do?

Y N

40. Do you think it's better to be smart than to be lucky?

Y N

APPENDIX B

COPE Individual Items

COPE Individual Items

	LD Group (n = 13)		Control Group (n = 13)		<i>t</i>	<i>p</i>
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)		
How important is health to your happiness?	1.54	(.52)	1.46	(.52)	-.38	.709
How satisfied are you with your health?	1.08	(1.89)	.85	(1.62)	-.334	.742
How important is self-esteem to your happiness?	1.54	(.52)	1.46	(.52)	-.378	.709
How satisfied are you with your self-esteem?	.62	(2.10)	1.62	(1.39)	1.43	.165
How important are goals and values to your happiness?	1.62	(.65)	1.46	(.66)	-.60	.555
How satisfied are you with your goals and values?	2.38	(.77)	1.15	(1.57)	-2.54	.018
How important is money to your happiness?	1.08	(.49)	1.38	(.77)	1.22	.238
How satisfied are you with the money you have?	.77	(1.69)	.38	(2.14)	-.51	.616
How important is work to your happiness?	1.23	(.60)	1.46	(.66)	.93	.36
How satisfied are you with the work you have?	1.38	(1.66)	1.23	(1.83)	-.22	.824
How satisfied are you with the play in your life?	2.38	(.51)	1.92	(1.19)	-1.29	.210

	LD Group (n = 13)		Control Group (n = 13)		<i>t</i>	<i>p</i>
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)		
How important is creativity to your happiness?	1.31	(.48)	1.23	(.60)	-.36	.72
How satisfied are you with your creativity?	1.92	(1.04)	1.46	(1.56)	-.89	.38
How important is helping to your happiness?	1.54	(.52)	1.31	(.63)	-1.02	.32
How satisfied are you with the helping that you do?	2.31	(.86)	1.23	(1.24)	-2.59	.02
How important is love to your happiness?	1.69	(.48)	1.85	(.38)	.91	.37
How satisfied are you with the love in your life?	2.23	(.93)	2.23	(1.69)	.00	1.00
How important are friends to your happiness?	1.46	(.52)	1.54	(.52)	.38	.71
How satisfied are you with your friends?	2.38	(.77)	1.77	(1.59)	-1.26	.22
How important are children to your happiness?	1.38	(.51)	1.38	(.87)	.00	1.00
How important are relatives to your happiness?	1.62	(.65)	1.85	(.38)	1.11	.28
How satisfied are you with your relationships with your relatives?	2.31	(1.18)	1.85	(1.82)	-.77	.45
How important is your home to your happiness?	1.31	(.63)	1.77	(.60)	1.91	.07

	LD Group (n = 13)		Control Group (n = 13)		<i>t</i>	<i>p</i>
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)		
How satisfied are you with your home?	2.23	(.73)	1.15	(2.15)	-1.71	.11
How important is your neighborhood to your happiness?	1.15	(.56)	1.46	(.66)	1.29	.21
How satisfied are you with your neighborhood?	1.77	(1.59)	1.23	(2.01)	-.76	.46
How important is your community to your happiness?	.92	(.49)	1.54	(.52)	3.10	.005
How satisfied are you with your community?	1.38	(1.50)	1.38	(2.06)	.00	1.00