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AN EXAMINATION OF THE SELF-ESTEEM, LOCUS OF CONTROL, AND INTEGRATED TIME PERSPECTIVE OF COLLEGE STUDENTS WITH LEARNING DISABILITIES

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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ABSTRACT

The purpose of this study was to investigate whether specific factors (i.e. self-esteem, locus of control, and integrated time perspective) could be identified which differentiate college students with learning disabilities from their peers who do not have a learning disability. Pre-college students with learning disabilities have been shown to have lower self-esteem (i.e. a lower evaluation of one’s self-worth), a more external locus of control (i.e. belief that performance can be attributed to factors outside of personal control), and a poorer integrated time perspective (i.e. more difficulty setting goals, using time efficiently, and having hope) when compared to their non-learning disabled peers. Since these traits have been shown to negatively impact career development, this study sought to determine if this pattern persisted in a sample of college students with learning disabilities. In addition to the examination of the relationship between learning disabilities and self-esteem, locus of control, and integrated time perspective, the relationships of various other factors such as the student's gender, age, and socioeconomic status to self-esteem, locus of control, and integrated time perspective also were investigated.

A total of 51 students with learning disabilities and 56 students with no learning disabilities were administered a measure of self-esteem (the Rosenberg
Self-Esteem Scale), a measure of locus of control (the Multidimensional-Multiattributional Causality Scale), three measures of integrated time perspective (the Hope Scale, the Long-Term Personal Direction Scale, and the Time Utilization Scale), and a personal information sheet. A MANOVA was performed to examine whether any differences existed between students with and without learning disabilities on the variables of self-esteem, locus of control, and integrated time perspective. Results of the study indicated that there were no differences between college students with learning disabilities and college students with no learning disabilities on the variables of self-esteem, locus of control, and integrated time perspective. In addition, there were no significant relationships between age, gender, and socioeconomic status and self-esteem, locus of control, and integrated time perspective.
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CHAPTER 1

INTRODUCTION

This investigation examined the self-esteem, locus of control, and integrated time perspective of college students with learning disabilities. Pre-college students with learning disabilities have shown a lower self-esteem and more external locus of control as compared to students with no disability (Ohler, Levinson, and Sanders, 1995). Theorists also have suggested that students with learning disabilities have greater difficulty in setting goals, utilizing time efficiently, and seeing their futures in a positive light (Biller, 1985; Mellard and Hazel, 1992). Unfortunately, very few studies have investigated the self-esteem and locus of control of college students with learning disabilities, and no study to date has explored the variable of time perspective regarding these students. Career theorists have stated that these three variables are fundamental in career planfulness (Super, 1983; Savickas and Super, 1993). Consequently, a better understanding of self-esteem, locus of control, and integrated time perspective in students with learning disabilities may enhance our knowledge of career planfulness with these same students.
Background of the Problem

The National Center for Educational Statistics (1989) reported that 160,878 or 1.3 percent of all U.S. post-secondary students have identified themselves as having a specific learning disability, and that number is growing. It is estimated that by the year 2000 more than 200,000 post-secondary students will have been diagnosed with a specific learning disability. This trend toward a growing number of students with learning disabilities is expected to continue due to number of reasons, including: 1) Passage of the 1977 regulations enforcing Section 504 of the Rehabilitation Act of 1973 (stipulates those post-secondary institutions receiving federal funds must provide services and programming to students with disabilities to make their campus accessible to these students); 2) Improved identification of students with learning disabilities by public school teachers and administrators; 3) Provision of expanded services to students in elementary and secondary schools.

Increasing numbers of students with learning disabilities who are entering college have special needs related to career development and academic achievement that are often unrecognized in institutions of higher education (Mangrum and Strichart, 1988; Rosenthal, 1989; Vogel, 1992). According to Ohler, Levinson, and Sanders (1995), academic, social, and cognitive deficits experienced by students with learning disabilities persist into adulthood. Just as children with learning disabilities experience academic and psychological problems in school, so do adults with learning disabilities experience difficulty in higher education and career contexts (McCue, 1992). Adults with learning
disabilities, including college graduates, hold significantly more unskilled and semiskilled positions and fewer skilled, managerial, and professional positions and are generally less satisfied with their jobs (Biller, 1988; Scuccimara and Speece, 1990; Stillington and Frank, 1992).

Researchers and theorists believe that the underemployment of people with learning disabilities may be attributed to many factors including psychological factors such as low self-esteem and an external locus of control, and behavioral factors such as inefficient time utilization and goal setting difficulty (Ohler, et al., 1995, Mellard and Hazel, 1992). Super (1983) wrote that “a sense of autonomy or internal locus of control, self-esteem, and time or future perspective are essential to planning, exploration, and the acquisition of career skills and information” (p.558). He labeled these three personality characteristics as components of planfulness. Super instructed counselors to ask whether a student is planful enough to benefit from the review of aptitude, interest, and value data. He warned that for some students their vocational futures are too remote or too uncontrollable for planning to seem worthwhile.

Despite the goal of higher education to help students with disabilities achieve academic, social, and vocational success, the National Joint Committee on Learning Disabilities (1995) reports that there has been a paucity of research concerning the needs of adults with learning disabilities in general, and even less on college students with learning disabilities. Most of the limited research on these students has focused on their academic deficits, despite strong evidence suggesting that for students' with learning disabilities, non-academic problems
including self-esteem, autonomy, goal setting, time utilization, and hope persist into adulthood (Buchanon and Wolf, 1986; Mellard and Hazel, 1992; Ohler, et al., 1995).

Therefore, the purpose of this study was to investigate whether some of these non-academic problems (i.e. low self-esteem, external locus of control, and poor time perspective) persisted in a sample of college students with learning disabilities and to discuss their possible influence upon students' vocational lives.

Statement of Problem

This study was designed to address several problems in the existing research. First, the majority of studies regarding self-esteem, locus of control, and time perspective of students with learning disabilities have been comprised of pre-college populations, primarily elementary school children. Since little research has investigated the relationship between these variables among college students with learning disabilities, one of the basic goals of this study was to obtain baseline data on possible differences between students with learning disabilities and their peers without learning disabilities. Many findings derived from younger samples of students are generalized to college populations. Researchers and theorists question generalizing these findings to college students since there are no clear developmental trends on which to base these assumptions (Bender, 1987).

Second, most studies of college students with learning disabilities were conducted at universities with comprehensive learning disability programs.
These comprehensive programs usually include individualized instruction, tutoring, diagnostic assessment, counseling, and remediation classes. However, ninety one percent of self-identified U.S. college students with learning disabilities attend colleges which do not offer highly structured services but do offer a variety of support services (Mangrum and Strichart, 1988). Only a few studies published over the past twenty five years included students from institutions which did not offer a comprehensive program (e.g. Cowen, 1988; Smith, 1992). Therefore, subjects for this study were chosen from a university which has no structured learning disability program in order to gain a better understanding of students who do not have the benefit of a comprehensive program.

Third, this study contributed empirically-based information to the field of counseling on this growing population of students with learning disabilities. Most of the research on college students with learning disabilities consist of case studies and psychoeducational profiles. While these types of studies are useful, they need to be balanced with empirical study.

Fourth, most studies of college students with learning disabilities have not included an examination of variables such as age, gender, race and socioeconomic status. Researchers have indicated that these factors may be related to self-esteem, locus of control, and time perspective (Bachman and O’Malley, 1984; Coleman, 1985; Wylie, 1979). Therefore, each student in this investigation was requested to give this information in order to gain a better understanding of the relationship of these variables.
In summary, researchers do not clearly understand if college students with learning disabilities have lower self-esteem, a more external locus of control, more difficulty with goal setting, poorer utilization of time, and/or less hope than their peers who are not learning disabled. Research on pre-college populations suggest that low self-esteem, an external locus of control, and a poorly integrated time perspective, negatively affect the academic, social, and vocational progress of these students. If college students have these traits, it may impact the type of services provided to these students. Since success or failure in college may determine future career opportunities, it is crucial for post-secondary educators and mental health professionals to learn more about these non-academic, psychosocial problems of college students with learning disabilities so that appropriate counseling and assistance can be provided. Currently, most college support services provide only tutorial and course selection assistance with little direct counseling focused on improving self-esteem, altering locus of control, enhancing goal setting and time utilization skills and increasing sense of hope. If this study can demonstrate that these factors impact a sample of college students with learning disabilities, it will help college counseling centers and support services better meet the needs of these students.

Definitions

Learning Disabilities

The most widely accepted definition of learning disabilities was developed in 1981 by the National Joint Committee on Learning Disabilities. It states:
Learning disabilities is a generic term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the life span. Problems in self-regulatory behaviors, social perception, and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability. Although learning disabilities may occur concomitantly with other handicapping conditions (for example, sensory impairment, mental retardation, serious emotional disturbance) or with extrinsic influences (such as cultural differences, insufficient or inappropriate instructions) they are not the result of these conditions or influences. (p.1)

College students with learning disabilities do not significantly differ from students without a disability in levels of intelligence. However, these two groups do differ in their reading, writing, listening, reasoning, and mathematical skills in which students with learning disabilities have more difficulty in one or more of these areas. In this study, a student's learning disability was identified by direct assessment of his/her disability by a psychologist or other qualified professional.

Self-Esteem (Global)

Self-esteem was defined as the degree to which a student feels that he/she is a worthwhile individual. Rosenberg (1979) describes global self-esteem as follows:

When we characterize a person as having high self-esteem... we mean that he (she) has self-respect, considers himself (herself) a person of worth. Appreciating his (her) own merits, he (she) nonetheless recognizes his (her) faults... that he (she) hopes and expects to overcome.... The term “low self-esteem”... means that the individual lacks respect for himself (herself), considers himself (herself) worthy, inadequate, or otherwise seriously deficient as a person (p.54).
Most studies of self-esteem and self-concept on students with learning disabilities fall into two primary categories – studies that operationalize global self-esteem by using a general measure such as the Rosenberg Self-Esteem Scale (Rosenberg, 1965), The Coopersmith Self-Esteem Inventory (Coopersmith, 1981) or the Piers-Harris Children's Self-Concept Scale (Piers, 1984), and studies that measure specific aspects of self-concept such as academic or social self-concept. This study measured only global self-esteem using the Rosenberg Self-Esteem Scale. Studies which have focused on global self-esteem/global self-concept of pre-college students with learning disabilities have generally supported the hypotheses that these students have lower global self-esteem than their peers with no learning disability (Black, 1974; Bruininks, 1978; Larson, Parker, and Jorjorian, 1973; Margalit and Zak, 1984; Rosenthal, 1973).

Regarding career development, Crook, Healy, and O'Shea (1984) reported that high self-esteem contributes to career success by improving perceptiveness. Findings from their study suggested that self-esteem contributes to work achievement and that high self-esteem may promote adoption of mature career attitudes. Korman's (1967) research also suggested that individuals lacking in self-esteem are less likely to make good matches between self and occupational role. Betz and Fitzgerald (1987) provide evidence that women who have high self-esteem are more able to actualize characteristics such as abilities and interests in occupational choices.
In Hoffman, Sheldon, Minskoff, Sautter, Steidle, Baker, Biley, and Echols, (1987) needs assessment of 381 adults with learning disabilities, 948 service providers, and 212 consumers, the latter 2 groups both identified self-esteem problems as the major barrier for adults with learning disabilities in obtaining successful, satisfying employment. Chesler (1982) reported that the Association of Adults and Children with Learning Disabilities survey of 560 adults with learning disabilities, found a strong desire among these adults for assistance with self-esteem and self-confidence.

**Locus of Control**

Rotter (1966) defines students possessing an internal locus of control as attributing their success or failure to their own abilities or effort. Students with internal locus of control believe that good things happen to them because they worked hard or had the talent to make them happen. On the other hand, students with an external locus of control attribute success or failure to luck, fate, or some outside force (e.g. I got a bad grade because the teacher didn’t like me). Locus of control has been consistently linked to academic, social, and vocational difficulties of students with learning disabilities (Omozio, Cubberly, and Longano, 1984). Most studies indicate that pre-college students with learning disabilities have an external locus of control (Bendell, Tollefson, and Fine, 1980; Cooley and Ayres, 1988; Hallahan, Gafar, Cohen, and Tarver, 1978, Licht, Kistner, Ozkaragoz, Shapiro, and Clausen, 1985; Palmer, Drummond, Tollison, and Zinkgraf, 1982). Studies which have compared pre-college students with and without learning disabilities have found that students with
learning disabilities have a much more external locus of control (Bladow, 1982; Fincham and Barling, 1978). For this study, locus of control was operationally defined by the Multidimensional Multiattributioanl Causality Scale (MMCS) (Lefcourt, 1981).

**Integrated Time Perspective**

According to Wolf and Savickas (1985), an integrated time perspective includes inclinations to structure the future with events and goals (temporal continuity), to possess energy to move toward a goal along with having the means to achieve the goal (hope), and to use present time in working toward goals (efficient time utilization). For a complete understanding of integrated time perspective the following terms need to be defined:

**Time**: “The complex set of personally-experienced constructs used by individual and cultures to account for the order, the duration, and organization of events” (Gorman and Wessman, 1977, p.31).

**Temporal Continuity**: A unified, continuous sense of time. The anticipation of a full and structured future, with an expected continuity of past, present, and future aims. Continuity was defined for this study by the Long-Term Personal Direction Scale (Wessman, 1973).

**Hope**: “A cognitive set that is based on a reciprocally derived sense of successful (a) agency (goal-directed determination) and (b) pathways (planning of ways to meet goals)”. (Snyder, 1995, p. 355). Hope was operationally defined by the Hope Scale (Snyder, 1991).
**Time Utilization**: The efficiency of time use with regard to planning, scheduling, and organizing. Time utilization was operationally defined by the Time Utilization Scale (Wessman, 1973).

Turnbull and Turnbull (1985) suggest that students with learning disabilities have weak organizational skills, poor time management abilities, and difficulty in planning their futures because of the nature of their learning disability. Some students with learning disabilities may have trouble communicating their ideas or feelings to the point where they can identify goals for themselves. However, no studies to date have investigated whether college students with learning disabilities have difficulty in planning their futures.

**Research Questions**

1) Do college students with learning disabilities show a different level of self-esteem than their peers who do not have a learning disability?

2) Do college students with learning disabilities differ in their locus of control as compared to their peers who do not have a learning disability?

3) Do college students with learning disabilities exhibit differences in their integrated time perspective (i.e. temporal continuity, time utilization, hope) as compared to their peers who do not have a learning disability?

4) Are there significant demographic variables (age, gender, race, socioeconomic status) related to self-esteem, locus of control, and integrated time perspective?
Null Hypotheses

1) There is no significant difference in self-esteem between students with learning disabilities and students with no learning disabilities.

2) There is no significant difference in locus of control between students with learning disabilities and students with no learning disabilities.

3) There is no significant difference in integrated time perspective (i.e. temporal continuity, time utilization, and hope) between students with learning disabilities and students with no learning disabilities.

4) Race, gender, age and socioeconomic status will have no relationship to college students' self-esteem, locus of control, and integrated time perspective.

Limitations

Several factors will have a limiting effect on this study. First, the definition of learning disability is not universally accepted by researchers and theorists (Adelman and Vogel, 1992). As mentioned previously, learning disabilities is a term that refers to a heterogeneous group of disorders with unknown characteristics which could affect the variables being studied.

Secondly, the reliability of the instruments used in this study may affect the results. Generally, self-report measures of affective traits are less reliable than instruments that measure academic or cognitive traits (Gable, 1986). Subjects are more likely to provide socially acceptable responses when self-report instruments are used to collect data. Researchers know very little about the response characteristics of college students with learning disabilities with respect to self-report inventories.
Third, students for this study were recruited from one university in Northeast Ohio which effects the generalizability of this study.
CHAPTER 2

REVIEW OF THE LITERATURE

The purpose of this chapter is to review the relevant theory and research regarding self-esteem, locus of control, and integrated time perspective of students with learning disabilities and discuss how these variables may relate to the student's vocational development.

Introduction

Researchers and professionals studying learning disabilities are beginning to focus more attention on adults with learning disabilities because learning disabilities are now recognized as a lifelong problem. Professionals in the field understand that they need to address issues that go beyond difficulties that children and adolescents have academically. Because researchers have only recently acknowledged the lifelong needs of adults with learning disabilities, very few empirically-based studies have focused on college students with learning disabilities. In addition, the studies on college students with learning disabilities have primarily focused on academic difficulties (e.g. Cordoni, O'Donnell, Ramanian, Kurtz, and Rosenshein, 1981; Vogel, 1982, 1986; Vogel and Adelman, 1992) and have included only students from comprehensive learning
disability programs (Cordoni et al. 1981, Ohler et al., 1992; Vogel 1986; Vogel and Adelman, 1992). Mangrum and Strichart (1988) reported that students from comprehensive learning disabilities programs represent only 9 percent of all college students with learning disabilities.

Research has shown that graduates from non-comprehensive college LD programs are either underemployed and/or less satisfied with their jobs (Biller, 1988; Stillington and Frank, 1992). Biller 1985 has suggested that the underemployment of college students with learning disabilities may be attributed to many factors including self-esteem, the evaluation of one’s self-worth, locus of control, the extent to which individuals believe that events are a result of their own actions, and integrated time perspective, the capacity to set goals, to use time efficiently, and have hope. Super and Savickas (1992) stated that these three variables are fundamental personality characteristics in career development.

This chapter is divided into four primary sections. The first section describes the relevant issues dealing with self-esteem, the second section focuses on locus of control, the third section on integrated time perspective, and fourth section on the employment of students with learning disabilities.

Self-Esteem

This review of self-esteem is divided into four subsections: (1) The first section provides an extended definition of global self-esteem and contrast it with the definition for self-concept. (2) The second section discusses the possible reasons that students with learning disabilities may have low self-esteem. (3)
The third section reviews studies which have specifically examined self-esteem in students with learning disabilities. (4) The fourth section discusses the relationship between self-esteem and career development.

Overview of Definitions and Theories of Self-Esteem

Theorists view self-esteem, or the degree to which a person feels that he/she is a worthwhile individual, to be crucial in a person's well-being, emotional adjustment, and vocational progress (Crook, Healy, and O'Shea, 1984; Raviv, 1987, Rogers, 1969). High self-esteem means being satisfied with who you are, liking yourself, and respecting yourself for meeting your own standards (Rosenberg, 1985). Coopersmith (1967) described four components to high self-esteem: (1) the individual feels capable; (2) the individual feels significant in that he/she matters to others; (3) the individual feels powerful; and (4) the individual feels unique and worthwhile in his/her own right.

Distinction Between Self-Esteem and Self-Concept

Psychologists describe self-esteem as a construct related to but slightly different from self-concept. Both terms are used in this study, so it is important to understand the distinction between these two constructs. A person's self-concept is what he/she thinks about himself/herself, a realistic or unrealistic assessment of his/her skills. In contrast, self-esteem is the positive or negative feelings that result when a person evaluates himself/herself, and to what degree he/she can accept and approve of himself/herself (Knoff, 1986). Therefore, a student may accurately describe himself/herself as a good athlete and scholar,
but may have low self-esteem because within his/her peer group it is more important to be physically attractive.

**How Does Self-Esteem Develop?**

Children begin to form a sense of themselves from the time they are born. These early experiences are especially important because it appears that at some time preceding middle childhood the individual arrives at a general appraisal of his/her worth, which remains relatively stable and enduring over a period of years (Coopersmith, 1967).

Many theorists believe the relationship between significant others and child lays the foundation for self-esteem. Cooley (1902), Mead (1934), and Harshbarger (1991) hypothesize that children base their self-esteem upon their perception of how others view them. The child perceives how key people respond to him/her and he/she will respond toward himself/herself in a manner consistent with others’ attitudes toward himself/herself. The value children assign to themselves is a reflection of how they believe others value them.

As children grow older, they begin to define themselves by concrete abilities, achievements, and physical characteristics (Cotton, 1983). Success at school is particularly important (Erikson, 1963). Children’s specific and general self-image continue to develop as they discover their own strengths and weaknesses according to these external standards. Festinger’s (1954) theory of social comparison proposes that as children mature they evaluate themselves by comparing their performances, attractiveness, and abilities with that of their peers. Rosenberg (1985) states that as children reach early adolescence their
self-esteem is particularly vulnerable to how they compare to their peer group. The adolescent becomes capable of introspection and, therefore, is more aware of his/her own imperfections as compared to others. Later in adolescence, the individual's sense of worth is generally regulated from within him/herself. Subsequently, he/she is less vulnerable to others' opinions and begins to rely more on his/her own opinion. Coopersmith (1967) points out, however, that the adolescent's internal opinion has been influenced by their childhood experience. Individuals with low self-esteem will be more dependent upon what others think of them than individuals with high self-esteem.

**Development of Self-Esteem as Related to Students with Learning Disabilities**

Hoffman et al. (1987) and other researchers propose that students with learning disabilities are at risk for developing low self-esteem. As mentioned previously, theorists propose that children base their self-esteem upon how they think others view them or by comparing their performance on tasks with that of their peers (Cooley, 1902; Festinger, 1954). These theories of Cooley and Festinger emphasize the cognitive determinants of self-esteem. According to Gardner (1973), these cognitive determinants may be distorted for children with learning disabilities. He proposes that perceptual deficits of children with learning disabilities make them more likely than their peers with no learning disability to misperceive messages from significant others. Therefore, Gardner (1973) states that children with learning disabilities have more difficulty in determining their own self-worth. He reports that these children generalize from committing a mistake to feeling they are a mistake. Fried (1979) states that
many children with learning disabilities view their lives as a series of mistakes which all total to low self-esteem.

Another important factor in the self-esteem of children with learning disabilities is acceptance. Covington and Beery (1976) state that environments of acceptance improve self-esteem, while environments of rejection lower it. Morvitz and Motta (1992) examined children’s perceptions of maternal and paternal acceptance and found that self-esteem was positively correlated. Students with learning disabilities have a tendency to receive criticism and correction from teachers and parents on a daily basis (Grolnick and Ryan, 1990). Unfortunately, many students with learning disabilities perceive criticism as attacking instead of helpful and will internalize those perceptions (Sabatino, 1982). In relation to peers, Wiener (1987) found in a review of 19 studies, that children with learning disabilities were considered by their peers to be lower in peer status than children with no learning disability (with peer rejection being related to lower self-esteem).

In addition, since older children have a tendency to define themselves by concrete abilities and achievement, students’ with learning disabilities self-esteem suffers as they struggle academically. Researchers have suggested that the placement of students with learning disabilities in special education classes and their use of special accommodations may facilitate social stigma and affect the student’s sense of self-worth (Bilken and Zollers, 1986).

During adolescence, the student with learning disabilities will likely experience many years of viewing himself/herself as ineffective, marginal, and/or
unsuccessful (Bingham, 1980). Many other psychologists and educators assume that adolescents with learning disabilities have poor self-esteem (Alley and Deschler, 1979; Moss and Skelton, 1976; Siegel, 1974). However, Silverman and Zigmond (1983) report that there are very few studies on the self-esteem/self-concept of adolescents with learning disabilities and those that have been conducted have produced conflicting results (e.g. Omizo and Amerikat, 1985; Raviv, 1987; Rosenberg and Gaier, 1977; Silverman and Zigmond, 1983; Tollefson et al., 1982).

Silverman and Zigmond (1983) hypothesize that these unexpected results may be caused by several factors. First, they believe that adolescents with learning disabilities may compensate for their academic deficits by excelling in extracurricular activities. They further hypothesize, that during adolescence academic success may not be the most significant variable on which adolescents base their self-esteem. Finally, they believe that adolescents with learning disabilities possibly have not assimilated the message given them by parents, teachers, or peers that they are failures. However, due to the paucity of empirical research on the self-esteem of adolescents with learning disabilities, it is difficult to make any conclusions.

As the adolescent with a learning disability becomes an adult the status of his/her self-esteem is even less clear. A survey of students with learning disabilities in graduate and professional schools revealed that their struggles with academics lowered their self-esteem as result of continual negative experiences with educational institutions (Parks, Antonoff, Drake, Skiba, and Soberman,
However, very few empirical studies have been conducted to confirm or refute this notion. The next section will review several empirical studies which have specifically examined the self-esteem of students with learning disabilities.

**Studies Measuring Global Self-Esteem/Global Self-Concept**

This section will review studies of both global self-esteem and global self-concept of students with learning disabilities since both constructs are used interchangeably in the literature.

**Studies of Children (8-12 years of age)**

Several studies using global self-esteem/self-concept measures have found differences between children with learning disabilities and students without learning disabilities. Rosenthal (1973), using the Coopersmith Self-Esteem Inventory (Coopersmith, 1967), found significant differences between a group of 20 adolescent boys with dyslexia age eight to fourteen and two equal sized groups matched by age, ethnic group, and socioeconomic class.

Black (1974) compared 25 elementary school children with learning disabilities and 25 children with no learning disability on reading ability, achievement, and global self-concept using the Piers-Harris Self-Concept Scale (Piers, 1969). All students were matched on the variables of school, grade, sex and WISC Full Scale IQ. He found that children with learning disabilities tend to view themselves more negatively than do children without a disability. He also found that level of self-concept was inversely related to the degree of underachievement.
Bruininks (1978) explored the peer status, self-esteem, perceived peer status, and interpersonal needs of students with learning disabilities versus students with no learning disabilities. Using the Coopersmith Self-Esteem Inventory to measure self-esteem, Bruininks compared 23 elementary school children with and without learning disabilities and matched these children in terms of gender. In this sample, students with learning disabilities in mainstream programs had significantly lower self-esteem and lower social status than the control group.

Margalit and Zak (1984) compared 100 students with learning disabilities and control group of 118 children on global self-concept and anxiety using the Piers-Harris Self-Concept Scale. They found that the students with learning disabilities expressed lower levels of global self-concept, and higher levels of anxiety related to their feeling that events were beyond their control.

Cooley and Ayers (1988) also found significant differences between children with and without learning disabilities on global self-concept using the Piers-Harris Self-Concept Scale. In addition, they found that students with learning disabilities were lower in social status.

As mentioned previously, Morvitz and Motta (1992) examined children's perception of parental acceptance and its relation to self-esteem. They compared 66 students with learning disabilities (3rd to 6th grade) with 60 students with no learning disabilities (3rd to 6th grade) using the Piers-Harris Self-Concept Scale. They found that the self-esteem of students with learning disabilities was significantly lower than that of non-learning disabled students.
Leondari (1993) compared self-concept and self-esteem ratings of normal and low-achieving students in regular classes with those of children with learning disabilities in special education classes. Children’s academic self-concept and global self-esteem were measured using the Perceived Competence Scale for Children. One hundred twenty one 3rd through 6th graders participated in the study. The results indicate that children with learning disabilities rated themselves more negatively than their normally achieving peers on both academic self-concept and global self-esteem.

After reviewing studies on self-esteem/self-concept of children (ages 8-12) with learning disabilities, this author found that each study showed a significant difference between students with and without learning disabilities, in that students with learning disabilities had lower self-esteem and/or a lower self-concept than their peers with no learning disability. However, this observation does not hold true when adolescents (ages 12-18) are considered.

Adolescents with Learning Disabilities (ages 12-18)

As previously mentioned, studies of adolescents with learning disabilities have produced conflicting results in terms of level of self-esteem/self-concept. Watts and Cushion (1982) compared adolescents with and without learning disabilities and found that students with learning disabilities had significantly lower self-esteem, particularly as it relates to academic performance. Watts and Cushion (1982) reported using a number of personality measures to assess self-esteem. Raviv (1987) used the Offer Self-Image Questionnaire and found that teenagers with learning disabilities had a significantly lower global self-concept.
as compared to teenagers without learning disabilities. In another study on adolescents, Omizo and Amerikat (1985), using the Coopersmith Self-Esteem Inventory, found that teenagers with learning disabilities had significantly lower self-esteem as compared to students with no learning disability.

In contrast, several studies using global self-esteem/self-concept measures did not find differences between adolescents. For example, Rosenberg and Gaier (1977) used the Coopersmith Self-Esteem Inventory in a study of 70 twelve to fifteen year old males. They did not find any significant differences in global self-esteem between students with and without learning disabilities. In addition, self-esteem scores between the groups did not vary as a function of the number of years students with learning disabilities spent in special education classes.

Tollefson et al. (1982) using the Rosenberg Self-Esteem Scale, found no significant differences between junior high students with and without learning disabilities. However, they also commented that although students with learning disabilities verbalized a strong desire to do well academically, they do not view themselves as being in control of academic outcomes, and therefore they often fail to expend the necessary effort to succeed.

Likewise, Silverman and Zigmond (1983) using the Piers-Harris Self-Concept Scale with middle and high school students who have a learning disability found that students with learning disabilities scores were not significantly different from either published norms or from that of a sample of students with no learning disabilities from the same school district. They argue
that adolescents with learning disabilities compensate for their school deficiencies by finding successful extracurricular activities.

**College Students**

Only one study was identified which examined the global self-esteem of college students with learning disabilities. Saracoglu, Minden, and Wilchesky (1989) assessed self-esteem, self-efficacy, and level of adjustment of 34 college students with learning disabilities compared to 40 students with no learning disability using the Rosenberg Self-Esteem Scale (Rosenberg, 1965), the Self-Efficacy Scale (Shaver et al., 1982), and Student Adaptation to College Questionnaire (Baker and Siryk, 1989), respectively. They found significant differences between the two groups on general self-esteem (i.e. students with learning disabilities had lower self-esteem), personal-emotional adjustment and academic adjustment. Saracoglu et al. (1989) recommends that future research should further explore perceptions of control in addition to feelings of personal competence in regard to students with learning disabilities.

Huntington and Bender (1993) comment that more studies on the self-esteem and self-concept of students with learning disabilities (adolescent and adult) are needed. These studies would provide much needed information in order to bring clarity to this issue.

**Self-Esteem and Career Development**

Relationships between a student's level of self-esteem and career development have been extensively studied by Super (1957,1963,1983). Super designed a career development model to define the processes underlying the
relationships between self-esteem and career decision making status (Barrett and Tinsley, 1977). According to the literature review by Barrett and Tinsley (1977), high self-esteem individuals more often display more commitment to choices, and select more satisfying goals than low self-esteem students. They explain that Super's model emphasizes that high self-esteem individuals have clearer perceptions of themselves and of the various career roles available to them than individuals with low self-esteem. Therefore, students with high self-esteem are better able to determine how well different vocational roles would meet their perceived values, interests, and abilities.

Locus of Control

This section is divided into three subsections: (1) The first section defines locus of control; (2) The second section reviews the literature pertinent to locus of control and students with learning disabilities; (3) The third section discusses locus of control as related to career development.

Definition of Locus of Control

While measures of self-esteem determine a student's sense of self-worth, measures of locus of control assess a student's causal explanation for success or failure. Locus of control studies are based on attribution theories which state that individuals perceive the cause of an event as a result of prior experience, observation and beliefs.

Rotter's (1975) attribution theory describes the construct of internal versus external control of reinforcement. Internal control refers to the perception that an event is contingent upon an individual's level of effort ("behavior") or ability
External control refers to perception that an event is not contingent upon the individual's actions or characteristics, but rather the result of uncontrollable factors such as luck or fate. Rotter's construct is presented as follows:

When a reinforcement is perceived by a subject as following some action of his own by being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this a belief in external control. If a person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this belief in internal control (Rotter, 1966, p.1).

Students with an internal locus of control will have greater perseverance on difficult tasks, delay gratification, and actively seek information pertinent to their success (Stipek and Weisz, 1981). They also will exhibit more ambition and higher levels of motivation (Diener and Dweck, 1978). Dweck and Repsichi (1973) found that perseverance in the face of failure is associated with making internal attributions. In addition, Diener and Dweck (1978) note that children with an external locus of control will be less motivated, have lower self-esteem, and will be more withdrawn.

Weiner (1983) expanded the locus of control construct by developing a three-dimensional classification scheme which includes a stability dimension (fixed/variable) dimension, a locus dimension (internal/external) and a control dimension. Weiner (1979) proposed four basic causes for success or failure (i.e.
ability, effort, luck, and context/task difficulty). Using the stability dimension, these causes can be classified as either fixed or variable. Ability and task difficulty are fixed causes, whereas effort and luck are variable causes. Weiner (1979) proposes that fixed causes provide a more stable basis for expectancy change (i.e. the increase or decrease in expectancy of success as a function of the causal explanation for an outcome) than do variable causes. Therefore, attributing an outcome to ability or task difficulty leads to a greater shift in expectancy than attributing an outcome to luck or effort. For example, if a student attributes his/her success on math test to higher math ability, then his/her expectancy for success on future tests should be greater than if he/she attributed his/her success to luck or effort.

Weiner (1979) proposes a second dimension of causes, locus, that differentiates the degree of expectancy change associated with internal attributions (i.e. ability and effort) from that associated with external attribution (i.e. luck and context/task difficulty). Weiner states that internal attributions (e.g. effort) should produce greater expectancy change than external attributions (e.g. luck).

When used together, the locus and stability dimensions can explain connections between causes and beliefs about the future (which is the third dimension, control). According to Weiner (1983) attributing outcomes to stable causes (ability or task difficulty) allows one to predict future outcomes. Attributing outcomes to variable and internal causes (effort) allows one to control

Beliefs about the causes of success or failure appear to affect children's future performance. If a child believes his failure is caused by personal (internal) factors that cannot be changed (stable), then the child will expect to fail again. Similarly, if a child believes his success is caused by events outside himself (external) that are changeable (unstable), the child also will expect to fail again. In contrast, children who believe their own personal knowledge and ability (internal) are stable and will expect their success to continue. Those children who believe external changeable factors cause failure tend to attribute their failure to a fluke (pp. 261-262)

Weiner's model of attribution appears to be widely accepted. His model led to the development of the Multidimensional Multiattributational Causality Scale (MMCS) (Lefcourt, 1981) which is the instrument being used in this study to operationalize locus of control.

Studies of Locus of Control and Learning Disabilities

Researchers of locus of control have found support for a developmental pattern in children in which degree of internal locus of control increases with age (e.g. Halpin and Ottinger, 1983; Lefcourt, 1976; Nowicki and Strickland, 1973). Stipek and Weisz (1981), in a review of the literature, report that most individuals, by the age of 12, attribute their own success to their ability and effort (internal causes) while attributing failure to the context/task difficulty (external causes). Numerous researchers (Fincham and Barling, 1978; Hallahan et al., 1978; Pearl, Bryan, and Donahue, 1980; Butkowsky and Willows, 1980; Tollefson et al., 1982; Aponik and Dembo, 1983, Lewis and Lawrence-Patterson,
1989; Rogers and Saklofske, 1985; Tarnolski and Nay, 1989) have found that children with learning disabilities do not follow this typical pattern and are more external in their perceptions of events than non-disabled children of the same age. In addition, Hallahan et al., (1978) and Chapman and Boersma (1979) have suggested that when internality does develop for children with learning disabilities, it is internality for failure and not for success. Therefore, children with learning disabilities appear to believe that failure is a result of their own actions, while success is due to luck or the behavior of others.

Fincham and Barling (1978) compared the locus of control and generosity of 9 and 10 year old boys with learning disabilities with normally achieving and gifted boys of the same age. Using the Nowicki-Strickland Locus of Control Scale (Nowicki and Strickland, 1973), they found that the boys with learning disabilities had significantly higher perception of external control as compared to the normally achieving and gifted boys.

Hallahan, Gajar, Cohen, and Tarver (1978) found similar results with junior high school students. They explored the relationships between locus of control and selective attention in students with and without learning disabilities using the Nowicki-Strickland Scale and the Intellectual Achievement Responsibility Questionnaire (Crandall, Katkovsky, and Crandall, 1965), which measures academic locus of control. On both scales, students with learning disabilities were significantly more external than their peers with no learning disabilities.
In a similar study, Rogers and Saklofske (1985) studied the general and academic self-concepts, the general and academic locus of control beliefs and academic performance expectations of 45 students with learning disabilities and 45 students with no learning disabilities, ages 7 to 12. As Hallahan et al., 1978, Rogers and Saklofske (1985) used the Nowicki-Strickland Scale and the Intellectual Achievement Responsibility Questionnaire to measure general and academic locus of control, respectively. They found that students with learning disabilities had lower general and academic self-concept, were more external on the measures of general and academic locus of control and had lower expectations for future academic performance.

Tarnowske and Nay (1989) administered the Nowicki-Strickland Scale to 51 boys, ages 7 to 9 years, who were classified into four diagnostic groups: (a) attention deficit disorder with hyperactivity (ADDH); (b) learning disabled; (c) ADDH-LD; and (d) controls. They found that children with learning disabilities (LD and ADDH-LD groups) differed significantly from students with no learning disability (ADDH and controls) in which students with learning disabilities had a more external locus of control.

Locus of Control and Success/Failure Experience

Researchers have also investigated specific attributions students with learning disabilities make in regard to success and failure experiences. Pearl, Bryan, Donahue (1980) reported that elementary students with learning disabilities differed from their peers with no learning disability in their explanations for success and failure. They used several different measures of
locus of control to conclude that children with learning disabilities are less likely to attribute academic failure to a lack of intelligence. This study implies that a child with a learning disability sees failure as inevitable, while a child with no disability generally views failure as an opportunity to learn and try again.

Pearl, Bryan, and Herzog (1983) used a board game to differentiate between students' with and without learning disabilities ascriptions for success and failure. They found that students with learning disabilities felt little control over their scores, did not generate new strategies for success, evaluated their performance as being worse than it really was and they had lower expectations for future success.

Tollefson et al, (1982) explored attributions for success and failure in junior high school students with learning disabilities by presenting easy, moderate and difficult spelling words and receiving an estimation form each student of how well they would do on the task. They found that students with learning disabilities attributed their success on the easy task to the simplicity of the task (task difficulty), their success or failure on the moderate task to their own effort, and failure on the difficult task to lack of ability. They concluded that students with learning disabilities do not take personal credit for success; however, they attribute failure to their own abilities which they cannot change.

In a similar study, Aponik and Dembo (1983) administered easy, moderate, and difficult verbal analogies to students with and without learning disabilities. After each item, they gave students feedback and then asked for explanations for their success and failure. Students with learning disabilities
attributed success to luck as the difficulty of the task increased, while students with no learning disability attributed success to ability and effort. In addition, students with learning disabilities attributed failure to a lack of ability as the task became more difficult while the students with no learning disability attributed less importance to ability and effort and more importance to task difficulty.

One study by Jacobsen, Lowery, and Ducette (1986) found results that somewhat conflict with the results listed above. They compared adolescents with and without learning disabilities using interview techniques to assess success or failure ascriptions. They found that both groups attributed perceived success to internal causes more frequently. However, the students with learning disabilities usually attributed their success to effort while the students with no learning disabilities usually chose ability as the better explanation for their success. To confound matters, however, students with learning disabilities chose more external causes (luck and task difficulty) for their success than students with no learning disability. The authors commented that students with learning disabilities may be very uncertain about reasons for their success because they chose so many different causal explanations.

**Locus of Control and Career Development**

As previously mentioned, Super (1983) regarded locus of control as a fundamental component of career planfulness. Super (1983) states that planning can take place only if people believe that they have some control over their careers. Biller (1985) states, since students with learning disabilities show an external locus of control, this suggests that students with learning disabilities
are less likely to make meaningful use of career assessment information and are more likely to be passive career planners. Bernadelli et al. (1983) and Stebbing (1985) have shown that internal beliefs are more conducive to improved career maturity than an external locus of control.

Integrated Time Perspective

This section is subdivided into three subsections: (1) definition of integrated time perspective; (2) the relationship of integrated time perspective and learning disabilities; and (3) integrated time perspective and career development.

Definition of Integrated Time Perspective

According to Savickas, Silling, and Schwartz (1984), a student's integrated time perspective determines how relevant the future is to current behavior and choices. Students will differ in the degree to which they think about and value the future. Time perspective refers to the subjective experiences and use of time. This definition differs from time perception, which refers to the perception and estimation of objective time, rather than personal meaning that individuals have for time (Wallace and Rabin, 1960).

Cottle (1976) separated conceptions of time into an objective and subjective sense of time. An objective sense of time refers to the conception of time units along a linear continuum (e.g. one hour equals sixty minutes). Subjective time, however, is how an individual thinks and feels about their conceptions of objective time. Cottle and Pleck (1969) comment that when two people are asked how long a year is, one person could respond with "extremely
long" and the other could respond with "not nearly long enough". An example of these two individuals might be a prisoner of war and doctoral student in psychology rushing to finish a dissertation.

As previously mentioned, an integrated time perspective involves: (1) subjectivity; (2) temporal continuity - the ability to set goals, plan events, and use past experiences to predict future outcomes; (3) hope - the belief that one can achieve one's goals and has the means to achieve those goals; and (4) efficient time utilization - the efficiency of time use with regard to planning, scheduling, and organizing.

Development of Integrated Time Perspective

According to Fraisse and Vautery (1952), time perspective appears to be a function of the developmental process. Piaget (1955) speculated that during the first years of life, a child only thinks in terms of the present. Either father is present, or he isn't, and there is no way for the child to project his return in the future. However, the child will develop time perspective so that at 6 or 7 years of age, when the child has reached the concrete operational stage, the child can utilize the near future. With the attainment of formal operations in adolescence, the link of a distant future can be utilized in present thought. The future is then treated as if it had present implications even though the future is at some level only a possibility (Piaget, 1955). During adolescence, it is expected that the individual will begin to commit to future possibilities (Piaget, 1977).

Wallace and Rubin (1960) concluded that time perspective develops gradually. By the second or third year, the child has a sense of past, present,
and future, but this is largely only a function of the development of an ability to cope with delayed gratification. With the development of words, the child can, at about age 8, begin to significantly enlarge the span of their time perspective. By the age of 13 or 14, the adolescent has an adult sense of time and can smoothly conceptualize the past, present, and future.

**Integrated Time Perspective and Learning Disabilities**

With respect to time perspective, adolescents with learning disabilities have been characterized as having difficulty committing to future possibilities (Torgeson, 1977). Researchers state that adolescents with learning disabilities possess poorly developed planning and organizational skills (Mellard and Hazel, 1992; Ross, 1976). Tollefson et al. (1980) also reported that adolescents with learning disabilities lacked goal setting skills and the ability to use past experience as a predictor of future performance. In addition, Robbins and Harway (1977) found that students with learning disabilities have greater variability in goal setting and are less realistic in their reactions to prior experience.

Turnbull and Turnbull (1985) state that there are possible reasons for the limited participation of many adolescents with learning disabilities in the planning of their futures. One reason may be that special educators often tend to emphasize remediation and to deemphasize independence in the education of children with disabilities. As a result, these educators often overlook the need to build students' self-esteem and give adolescents experience in making decisions and setting goals. Another reason may be the nature of the learning disability
makes it difficult for these students to be involved in making decisions about their futures. Specifically, some adolescents with learning disabilities have difficulty thinking through their thoughts and feelings to the point where they can identify goals for themselves. In addition, parents of students with learning disabilities, have a tendency to be overly protective which can stunt these students' ability to make their own decisions (Manus and Manus, 1983).

**Integrated Time Perspective and Career Development**

Time perspective is considered to be another component of career planfulness (Super, 1983). According to Super (1983), this component has as its determinant the ability to think about past experiences and conceptualize the future. Savickas, Silling, and Schwartz (1984) in a study of 97 college first year students, found that time perspective is a component in vocational maturity and decision-making. Biller (1985) states that if students with learning disabilities have difficulty conceptualizing the immediate and distant future, then it is highly unlikely that these students will successfully specify and implement career preferences at the time that it is most needed. Biller (1985) bases this conclusion on Super's (1983) premise that specifying and implementing career preferences is contingent on being able to conceptualize the immediate and distant future.

**Summary**

Based on the very limited research, one could conclude that adolescents with learning disabilities have a poorer integrated time perspective (i.e. less of a sense of continuity of past, present, and future; less motivation for and
commitment to long-term goals; less efficient use of time with regard to planning, scheduling, and organizing). (No study to date has examined the construct of hope in regard to students with learning disabilities.) This problem could be attributed to the nature of the learning disability, itself, and the deemphasis of independence in the treatment of students with learning disabilities. However, researchers and theorists possess very little information as to whether this problem persists into adulthood, specifically college students.

Employment of College Graduates with Learning Disabilities

Researchers have found that college students with learning disabilities encounter significant difficulties in obtaining and maintaining employment (Blalock, 1982; Hoffmann et al., 1987). Other researchers have remarked that college graduates with learning disabilities are underemployed when compared to non-learning disabled peers (Biller, 1988, Stiltington and Frank, 1992; Ohler et al., 1995).

Blalock (1982) and Hoffmann et al., (1987) reported that graduates with learning disabilities who are either unemployed or underemployed were lacking in self-understanding and self-esteem. That is, although they knew that they were having difficulties, they did not understand the impact of their specific cognitive and/or social deficits. In a study of adults with learning disabilities in vocational rehabilitation, the psychosocial limitations (e.g. self-esteem, locus of control) of learning disabilities were viewed as being just as important as the academic limitations (Rehabilitation Services Administration, 1983).
On the other hand, some studies report successful employment of college graduates with learning disabilities (Silver and Hagin, 1985; Vogel, 1992). Silver and Hagin (1985) found that successfully employed students with learning disabilities had chosen careers in their areas of strength. For example, many of the successfully employed students with perceptual and/or quantitative strengths chose engineering, accounting, and finance. While students with reading disabilities selected jobs which required very little reading such as jobs in administration and management. Vogel (1992) found similar results for the students in her study in which they chose professions which emphasized their strengths and not their weaknesses. In both studies, students with learning disabilities were enrolled in comprehensive learning disability programs. These programs offered a variety of services including a special emphasis on building self-understanding and using time efficiently. As stated previously, most students attend colleges which offer only simple support services which entails providing academic accommodations. These studies suggest the need for universities to expand their services beyond just providing academic accommodations in order to meet the vocational and social needs of their students.
CHAPTER 3

METHODOLOGY

This chapter presents the procedures, methods and instrumentation that were employed in this study. The chapter is divided into four sections: (1) selection of the sample; (2) instrumentation; (3) data collection procedures; and (4) statistical analyses used in this investigation.

Sample Characteristics

Subjects for this study were solicited from a large public university in northeastern Ohio (Kent State University) which provides a variety of academic support services to students with learning disabilities, but does not offer a comprehensive program (e.g. individualized instruction, diagnostic assessment, counseling, and remediation classes) for these students. Approval was sought from the director of the learning disability program at Kent State University to solicit the voluntary participation of students in that program.

Students involved in the support services at Kent State are identified as learning disabled by direct assessment of their learning disability by psychologists on or off campus. Documentation from psychologists must indicate that the learning disability substantially limits the individuals' ability to
learn. Kent State follows the guidelines developed by the Association on Higher Education and Disability. Specifically, the evaluation must adhere to the following criteria:

1. Testing must be current (within the past 3 years).
2. Testing must indicate a specific diagnosis from the DSM-IV. The nature and the severity of the disability must be supported by the psychoeducational assessment.
3. Actual test scores must be provided.
4. Test scores must show evidence of significant discrepancies and intra-individual differences.
5. A description of requested accommodations including the rationale must be provided.
6. A qualified professional must conduct the evaluation. They must indicate licensure or certification on the assessment.
7. Minimally, domains to be addressed must include an assessment of aptitude, achievement, and information processing.

No self-identified students with learning disabilities were used for this study. No additional confirmation of a student's learning disability was conducted.

Students with no learning disability were solicited from the residence halls of the same university. Students from freshman, sophomore, junior, and senior halls were asked to participate to better match the learning disability population. Permission was obtained from the university's director of residence halls to solicit the voluntary participation of residents. Data collection took place during fall semester of 1997.

To determine the number of subjects needed for this study, a power analysis was conducted. With power set at .80, alpha at .05, and a medium effect size of .15, the overall number of subjects needed for this study was computed to be 92.
Instrumentation

Demographic Information

The only personal data collected from participants was information that might influence the outcomes of this research. The data collected consisted of the students' age, gender, race, academic standing, socioeconomic status (SES), academic major and learning disability status (see Appendix A). The student’s SES was determined by using the Hollingshead Four Factor Index of Social Status (Hollingshead, 1975).

Self-Esteem

The self-esteem of each student was measured by their responses to the Rosenberg Self-Esteem Scale (Rosenberg, 1965), (see Appendix B). This scale measures an individual's perception of their own attributes along positive and negative dimensions. Each of the 10 items in this instrument measures global self-esteem, defined as the degree to which a student feels that he/she is a worthwhile individual. Rosenberg assumes that each individual, in building his or her global self-esteem, has consciously or unconsciously weighted a unique set of attributes of personal importance.

Answers to each of the ten items range on a four point Likert scale from strongly disagree to strongly agree. Individual scores range from 0 to 40 in which disagreements with negative items are scored positively. Higher scores reflect higher reported global self-esteem.

Studies have shown the Rosenberg Self-Esteem Scale to be reliable and valid. In terms of internal consistency, studies have reported alpha coefficients
ranging from .80 (Orne, Reis, and Herz, 1986) to .87 (Byrne and Shavelson, 1986). Shevlin, Bunting, and Lewis (1995) applying a unidimensional confirmatory factor analysis found the scale to be internally consistent and temporarily stable. Test-retest coefficients have ranged from .85 (2 week interval) to .63 (7 month interval). For construct validity, reported coefficients of reproducibility were .92. Byrne and Shavelson (1986) reported convergent validity coefficients of .79 with the General Self-Concept Scale of the SDQ III and .64 with the Self-Concept Subscale of the API. Demo (1985) obtained r's of .65 with the Coopersmith Self-Esteem Inventory.

**Locus of Control**

The student's locus of control was measured by responses to the achievement subscale of the Multidimensional Multiattributational Causality Scale (MMCS) (Lefcourt, 1981), (see Appendix C). Each of the 24 items of the achievement subscale of the MMCS is rated on a 5-point Likert scale indicating the respondents degree of agreement or disagreement with each item. Twelve items focus on success experiences and twelve items focus on failure experiences. The 24 items of this subscale are further divided into four sets of attributions which include ability (internal-stable), effort (internal-unstable), context (external-stable) and luck (external-unstable). (Combining ability and effort scores provides an internality score; while combining context and luck scores provides an externality score). This balancing procedure results in two 3 item scales for each attribution, one for success and the other for failure. Thus, the achievement subscale of the MMCS is comprised of eight independent
subscales with possible subscale scores ranging from 0-12. Scores are also obtained for total externality, which consists of agreements with external attributions (externality) and the denial of internal attributions (internality). (Total externality was used in this study to reflect locus of control). The possible range of scores for total externality is -48 to 48 (higher scores reflecting a more external locus of control).

Lefcourt, Von Beyer, Ware, and Cox (1979) reported coefficient alphas ranging from .68 to .88 for the achievement subscale. Achievement internality ranges between .70 and .77, whereas achievement externality ranges between .66 and .88. Test-retest reliability coefficients ranged from .62 to .51 for 1-week to 4-month intervals. Lefcourt (1981) reported that correlations between this subscale and Rotter’s I-E scale (Rotter, 1966) have been positive, significant and of variable magnitudes ranging from .33 to .62.

**Integrated Time Perspective**

The present study used 3 self-report scales to operationalize time perspective: The Long Term Personal Direction (LTPD) Scale (Wessman, 1973); The Time Utilization (TU) Scale (Wessman, 1973); and the Hope Scale (Snyder, 1991). The selection of the first two scales was based on the results of a factor analytic study of 31 time perspective measures conducted by Madison (1984). According to Madison, these two scales measure latent dimensions underlying the construct of time perspective. The Hope Scale (Snyder, 1991) was used because it has been suggested that this scale is the best measure of hope available (Savickas, 1996, personal communication).
The LTPD scale (see Appendix D) consists of 20 items that are at the extremes of a factor analytically derived bipolar dimension. Positively loaded items indicate direction and purpose in life and sense of continuity between past, present, and future aims. Negative items concern a lack of commitment, an absence of purpose and futility. The LTPD is composed of 20 items in which each item is rated on a 7-point Likert scale ranging from "not at all" descriptive to "perfectly" descriptive. Each scale is balanced equally with positive and negative items with a possible range of scores from 0 to 120. Wessman (1973) reported a coefficient alpha index of reliability of .80 for the LTPD. Wessman (1973) provided evidence of the concurrent validity of the LTPD scale in a 6-week mood study in which the LTPD was highly correlated with measures of disorientation and lack of continuity. He also provided evidence of construct validity using the Sixteen Personality Factor Questionnaire (16PF), Rorschach, and Q-sort measures.

The Time Utilization Scale (TU) (see Appendix E) measures the efficiency of time use with regard to planning, scheduling, and organizing. Positive items on the TU reflect efficient scheduling, organizing, and planning of time. Negative items reflect procrastination, inefficiency, and disorganization. Like the LTPD, the TU is composed of 20 items with each item rated on a 7-point Likert scale with each scale being balanced equally with positive and negative items. The possible range of scores is 0 to 120. Wessman (1973) reported coefficient alpha of .83 for the TU. In addition, he reported high concurrent validity in a 6-week
mood study and reported high construct validity using the 16PF, Rorschach, and Q-sort measures.

The Hope Scale (see Appendix F) is a 12 item scale which measures a student’s energy to move toward his/her goal (agency) and the perceived ability to generate avenues to meet those goals (pathways). Four items measure agency and four items measure pathways. The additional four items serve as distracters. Scores range from 8 to 32 with 24 being average for college samples. Snyder (1991) reports coefficient alphas of .74 to .84 and test-retest reliability after intervals of 3 to 10 weeks in the .80 range. Snyder (1995) reported that the Hope Scale has concurrent validity in that it correlates positively with measures of perceived problem solving capabilities, self-esteem, optimism, positive affectivity, perceptions of control, and positive outcome expectancies. In addition, Snyder (1995) reported strong construct validity in that higher hope individuals report more mental energy and pathways for their goals.

The instruments were presented to students in a random order except for the demographic information page which was presented first.

Data Collection Procedures

Students with Learning Disabilities

As mentioned previously, data were collected from students with learning disabilities who are currently registered with the Office of Student Disability Services (SDS) at Kent State University. At the Office of SDS each student meets with a counselor for an initial interview during fall semester. At the end of this initial interview, each student was asked if they would be willing to participate
in a study. The staff member informed the student about the nature of the study, confidentiality, and the right to refuse or withdraw from the study without penalty or punishment (see Appendix G). The student also was informed of a drawing for two opportunities to win $50 which would be conducted at the end of the study for those who chose to participate. If the student agreed to participate, the staff member would give the student a consent letter (see Appendix H) attached to an envelope with the survey inside the envelope. If the student chose to participate, he or she would complete the survey in a private room provided by SDS and return the completed form sealed in the envelope to the front desk of SDS. At this time, the student would be handed a debriefing sheet (see Appendix I). Students were able to receive a copy of the results at the SDS office or they had the opportunity to meet with the researcher to discuss the results.

Students with no Learning Disabilities

As mentioned previously, students from Kent State University's residence halls served as control subjects. The researcher attended residence hall floor meetings at both lower class (i.e. freshman, sophomore) and upper class (i.e. junior, senior) halls. The investigator explained the nature of the study, confidentiality, and the right to refuse or withdraw from the study without penalty or punishment. Students were also informed of a drawing for two chances to win $50 which would be conducted at the end of the study for those students who participated. Students who chose to participate received an envelope with the survey inside and the consent letter attached to the outside (see Appendix J).
Once the student finished the survey, he or she returned it in a sealed envelope to the investigator. At this time, the student received a debriefing sheet (see Appendix I). The student was able to receive a copy of the results at the SDS office or by contacting the investigator.

**Statistical Analysis**

To test whether a combination of five dependent variables (i.e. self-esteem, locus of control, hope, time utilization, and continuity) load on the independent variable of learning disability, a multivariate analysis of variance (MANOVA) was performed. Since a significant MANOVA did not exist, a step-wise discriminant analysis was not conducted to examine whether any group differences existed on each individual variable. Although researchers typically use separate univariate t-tests as a follow-up to a significant MANOVA, discriminant analysis offers the advantages of reducing Type I error and providing a more parsimonious description of group differences (Betz, 1987). In order to determine which demographic variables (i.e. age, race, SES, and gender) were related to students' self-esteem, locus of control, and integrated time perspective, Pearson correlations were obtained. In addition to Pearson correlations, a multiple regression analysis was performed to examine the relationship of these variables. In addition, to test for any relationships between the instruments, Pearson correlations were performed.
CHAPTER 4

RESULTS

This chapter summarizes the analyses of the data collected during this study. First, descriptive information is presented including demographics, means, standard deviations, and alpha reliabilities for each instrument. Second, correlations between the five measures are reported. Third, a between-group (LD vs. non-LD) multivariate analysis is discussed related to the variables of interest. And fourth, a within-group analysis is presented regarding the variables of age, gender, race, and SES.

Descriptive Information

A total of 110 students from Kent State University participated in this study. Fifty-one of these students had a documented learning disability (51 respondents from a total pool of 172 students with learning disabilities), while fifty-six of these students had no learning disability. Three students' results were eliminated from this study because they reported having a learning disability with no documentation (these students were part of the residence hall subject pool). Table 4.1 indicates the composition of the research sample.
<table>
<thead>
<tr>
<th>Variable</th>
<th>LD*</th>
<th>NLD*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Students</td>
<td>51</td>
<td>56</td>
<td>107</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>28</td>
<td>27</td>
<td>55</td>
</tr>
<tr>
<td>Female</td>
<td>23</td>
<td>29</td>
<td>52</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>48</td>
<td>53</td>
<td>101</td>
</tr>
<tr>
<td>Black</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Asian Amer.</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Native Amer.</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Academic Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>17</td>
<td>19</td>
<td>37</td>
</tr>
<tr>
<td>Sophomore</td>
<td>16</td>
<td>19</td>
<td>33</td>
</tr>
<tr>
<td>Juniors</td>
<td>10</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>Seniors</td>
<td>8</td>
<td>7</td>
<td>15</td>
</tr>
</tbody>
</table>

*LD = learning disabled; *NLD = non-learning disabled

Table 4.1: Distribution of research sample (N=107)

Means and standard deviations for all of the variables of interest were calculated for both students with learning disabilities and students without learning disabilities. This information is presented in Table 4.2. The variables of interest include age, self-reported grade point average (GPA), socioeconomic status (as measured by the Hollingshead Four Factor Index), self-esteem (as measured by the Rosenberg Self-Esteem Scale), time utilization (as measured
<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>LD***</th>
<th>NLD****</th>
<th>Mean</th>
<th>NLD</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>51</td>
<td>56</td>
<td>20.57</td>
<td>19.84</td>
<td>3.35</td>
<td>1.65</td>
</tr>
<tr>
<td>Grade Point Average</td>
<td>51</td>
<td>56</td>
<td>2.833</td>
<td>2.989</td>
<td>.452</td>
<td>.460</td>
</tr>
<tr>
<td>SES*</td>
<td>51</td>
<td>56</td>
<td>32.47</td>
<td>33.29</td>
<td>11.34</td>
<td>9.64</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>51</td>
<td>56</td>
<td>32.10</td>
<td>32.16</td>
<td>4.24</td>
<td>4.81</td>
</tr>
<tr>
<td>Time Utilization</td>
<td>51</td>
<td>56</td>
<td>69.20</td>
<td>68.36</td>
<td>14.83</td>
<td>18.33</td>
</tr>
<tr>
<td>Continuity</td>
<td>51</td>
<td>56</td>
<td>75.39</td>
<td>76.91</td>
<td>14.14</td>
<td>12.65</td>
</tr>
<tr>
<td>Hope</td>
<td>51</td>
<td>56</td>
<td>25.47</td>
<td>26.09</td>
<td>3.65</td>
<td>3.65</td>
</tr>
<tr>
<td>Locus of Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability</td>
<td>51</td>
<td>56</td>
<td>15.00</td>
<td>14.68</td>
<td>3.37</td>
<td>3.57</td>
</tr>
<tr>
<td>Effort</td>
<td>51</td>
<td>56</td>
<td>16.04</td>
<td>18.21</td>
<td>3.92</td>
<td>3.42</td>
</tr>
<tr>
<td>Context</td>
<td>51</td>
<td>56</td>
<td>12.20</td>
<td>11.88</td>
<td>3.62</td>
<td>4.59</td>
</tr>
<tr>
<td>Luck</td>
<td>51</td>
<td>56</td>
<td>10.43</td>
<td>10.41</td>
<td>4.06</td>
<td>4.67</td>
</tr>
<tr>
<td>Internality</td>
<td>51</td>
<td>56</td>
<td>31.24</td>
<td>32.91</td>
<td>5.63</td>
<td>4.60</td>
</tr>
<tr>
<td>Externality</td>
<td>51</td>
<td>56</td>
<td>22.63</td>
<td>22.29</td>
<td>6.33</td>
<td>8.66</td>
</tr>
<tr>
<td>Success</td>
<td>51</td>
<td>56</td>
<td>17.31</td>
<td>17.54</td>
<td>3.71</td>
<td>4.17</td>
</tr>
<tr>
<td>Failure</td>
<td>51</td>
<td>56</td>
<td>23.17</td>
<td>24.82</td>
<td>3.86</td>
<td>4.01</td>
</tr>
<tr>
<td>Total Externality**</td>
<td>51</td>
<td>56</td>
<td>-8.53</td>
<td>-10.63</td>
<td>8.51</td>
<td>9.65</td>
</tr>
</tbody>
</table>

* SES = Socioeconomic Status measured by the Hollingshead Four Factor Index of Social Status (Hollingshead, 1975)
** Total Externality = The Externality score - The Internality Score
*** LD = Students with Learning Disabilities
**** NLD = Students with No Learning Disabilities

Table 4.2: Means and Standard Deviations of the Variables of Interest (Students With Learning Disabilities)

by the Time Utilization Scale, Wessman, 1973), continuity (as measured by the Long-Term Personal Direction Scale, Wessman, 1973), hope (as measured by the The Hope Scale, Snyder, et al., 1991), and the attribution variables including ability, effort, context, luck, internality, externality, success, failure, and total externality, (as measured by the Multidimensional-Multiattributitional Causality Scale, Lefcourt, et al., 1979).
Normative data for each of these scales is provided in Table 4.3. T-tests revealed no significant differences existed between the normative sample means and the means of the two samples in this study on any of the dependent variables.

<table>
<thead>
<tr>
<th>Scale/Factor</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem (RSES*)</td>
<td>1000</td>
<td>31.80</td>
<td>3.75</td>
</tr>
<tr>
<td>Hope (Hope Scale**)</td>
<td>4000</td>
<td>25.35</td>
<td>2.95</td>
</tr>
<tr>
<td>Time Utilization (TU scale***)</td>
<td>215</td>
<td>67.59</td>
<td>11.85</td>
</tr>
<tr>
<td>Continuity (LTPD scale****)</td>
<td>215</td>
<td>74.23</td>
<td>12.14</td>
</tr>
<tr>
<td>Locus of Control (MMCS*****))</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability</td>
<td>200</td>
<td>14.70</td>
<td>3.50</td>
</tr>
<tr>
<td>Effort</td>
<td>200</td>
<td>18.20</td>
<td>3.40</td>
</tr>
<tr>
<td>Context</td>
<td>200</td>
<td>13.00</td>
<td>3.70</td>
</tr>
<tr>
<td>Luck</td>
<td>200</td>
<td>11.80</td>
<td>4.45</td>
</tr>
<tr>
<td>Internality</td>
<td>200</td>
<td>32.90</td>
<td>5.15</td>
</tr>
<tr>
<td>Externality</td>
<td>200</td>
<td>24.75</td>
<td>6.80</td>
</tr>
<tr>
<td>Success</td>
<td>200</td>
<td>17.90</td>
<td>5.20</td>
</tr>
<tr>
<td>Failure</td>
<td>200</td>
<td>22.00</td>
<td>5.90</td>
</tr>
<tr>
<td>Total Externality</td>
<td>200</td>
<td>-8.15</td>
<td>7.95</td>
</tr>
</tbody>
</table>

* Rosenberg Self-esteem Scale - data received from Wylie 1989
** The Hope Scale - data received from Snyder, Harris, Anderson, and Holleran (1991).
*** Time Utilization Scale - data received from Wolf and Savickas (1985).
**** Long-Term Personal Direction scale - data received from Wolf and Savickas (1985)
***** Multidimensional-Multiattributional Causality Scale - data received from Lefcourt, von Beyer, Ware, and Cox (1979).

Table 4.3: Normative Data for the Sample Scales/Factors

In order to determine if the instruments used in this study provided measurement as reliable as in the normative samples, coefficient alpha indexes of reliability were conducted for this study sample. Results show that alpha
reliabilities for the scales in this sample are generally consistent with those obtained in the normative groups (Table 4.4).

<table>
<thead>
<tr>
<th>Scale/Factor</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem (RSES)</td>
<td>.84</td>
</tr>
<tr>
<td>Time utilization (TU)</td>
<td>.79</td>
</tr>
<tr>
<td>Continuity (LTPD)</td>
<td>.81</td>
</tr>
<tr>
<td>Hope (Hope Scale)</td>
<td>.78</td>
</tr>
<tr>
<td>Ability (MMCS)</td>
<td>.59</td>
</tr>
<tr>
<td>Effort</td>
<td>.64</td>
</tr>
<tr>
<td>Context</td>
<td>.55</td>
</tr>
<tr>
<td>Luck</td>
<td>.66</td>
</tr>
<tr>
<td>Internality</td>
<td>.63</td>
</tr>
<tr>
<td>Externality</td>
<td>.72</td>
</tr>
<tr>
<td>Success</td>
<td>.58</td>
</tr>
<tr>
<td>Failure</td>
<td>.53</td>
</tr>
</tbody>
</table>

Table 4.4: Alpha Reliabilities of Sample Scales and Factors

Correlations of Sample Measures

Pearson correlations were calculated for the five major variables measured in this sample: 1) self-esteem (Rosenberg Self-Esteem Scale); 2) locus of control = total externality (Multidimensional-Multiattributional Causality Scale); 3) hope (The Hope Scale); 4) time utilization (Time Utilization Scale); and 5) continuity (Long-Term Personal Direction Scale). Table 4.5 shows the resulting correlation coefficients and their two-tail level of significance. Inspection of the correlation matrix indicates that all five variables are significantly correlated with each other at the two-tail level of significance of .01. Self-esteem, hope, continuity, and time utilization are all positively correlated
with each other while these four variables are negatively correlated with total externality.

<table>
<thead>
<tr>
<th></th>
<th>Self-esteem</th>
<th>Hope</th>
<th>Continuity</th>
<th>Time utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Externality</td>
<td>-.479**</td>
<td>-.438**</td>
<td>-.452**</td>
<td>-.338**</td>
</tr>
<tr>
<td>Time Utilization</td>
<td>.417**</td>
<td>.451**</td>
<td>.704**</td>
<td></td>
</tr>
<tr>
<td>Continuity</td>
<td>.571**</td>
<td>.584**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hope</td>
<td>.593**</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p<.01 two-tailed test

Table 4.5: Pearson Correlations Between the Five Sample Measures

**Tests of Hypotheses**

The null hypotheses predicted no significant differences between students with learning disabilities and students with no learning disabilities on each dependent measure. In addition, the null hypotheses predicted that certain demographic variables would have no effect on each dependent measure. A multivariate analysis of variance (MANOVA) was conducted to test the first hypothesis listed above. Specifically, a MANOVA was used to determine if there was a significant difference between the mean scores on the Rosenberg Self-Esteem Scale, the Multidimensional-Multiattributional Causality Scale, the Hope Scale, the Time Utilization Scale, and the Long-Term Personal Direction Scale for the two groups. Whether the student had a learning disability was treated as the independent variable while the students' self-esteem, total externality (locus...
of control, time utilization, continuity, and hope were treated as dependent variables.

The MANOVA showed that the two groups did not differ with respect to their scores on the self-esteem, locus of control, time utilization, continuity, and hope scales (Table 4.6). Since a significant MANOVA did not exist, a step-wise discriminant analysis was not conducted to determine whether group differences existed for each individual variable.

<table>
<thead>
<tr>
<th>Variable</th>
<th>F ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Esteem</td>
<td>.486</td>
<td>.487</td>
</tr>
<tr>
<td>Total Externality</td>
<td>1.611</td>
<td>.207</td>
</tr>
<tr>
<td>Hope</td>
<td>1.300</td>
<td>.257</td>
</tr>
<tr>
<td>Continuity</td>
<td>1.550</td>
<td>.216</td>
</tr>
<tr>
<td>Time Utilization</td>
<td>1.919</td>
<td>.169</td>
</tr>
</tbody>
</table>

Table 4.6: MANOVA: Independent Variable = Learning Disability Dependent Variables = Self-esteem, total externality, time utilization, continuity, and hope

However, as a post-hoc analysis, univariate t-tests were performed to test for any group differences on all the variables of interest. To reduce the likelihood of making a Type I error, the significance level for these tests was set at .01. There was a significant difference between the two groups on the variables of effort and success. Students with no learning disabilities attributed their success and failure to effort more than students with learning disabilities (sig. = .003). In addition, students with no learning disability attributed their success to internal
attributes (ability and effort) more than students with learning disabilities (sig. = .010). No other significant differences were found (Table 4.7).

<table>
<thead>
<tr>
<th>Variable</th>
<th>t</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Esteem</td>
<td>.071</td>
<td>105</td>
<td>.943</td>
</tr>
<tr>
<td>Hope</td>
<td>.935</td>
<td>105</td>
<td>.352</td>
</tr>
<tr>
<td>Continuity</td>
<td>.586</td>
<td>105</td>
<td>.559</td>
</tr>
<tr>
<td>Time Utilization</td>
<td>-.259</td>
<td>105</td>
<td>.796</td>
</tr>
<tr>
<td>Ability</td>
<td>-.477</td>
<td>105</td>
<td>.634</td>
</tr>
<tr>
<td>Effort</td>
<td>3.065**</td>
<td>105</td>
<td>.003</td>
</tr>
<tr>
<td>Context</td>
<td>-.399</td>
<td>105</td>
<td>.691</td>
</tr>
<tr>
<td>Luck</td>
<td>-.024</td>
<td>105</td>
<td>.981</td>
</tr>
<tr>
<td>Success E*</td>
<td>-1.582</td>
<td>105</td>
<td>.117</td>
</tr>
<tr>
<td>Success I*</td>
<td>2.498**</td>
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<td>Failure E</td>
<td>1.030</td>
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<tr>
<td>Failure I</td>
<td>1.136</td>
<td>105</td>
<td>.259</td>
</tr>
<tr>
<td>Externality</td>
<td>-.231</td>
<td>105</td>
<td>.818</td>
</tr>
<tr>
<td>Internality</td>
<td>1.691</td>
<td>105</td>
<td>.094</td>
</tr>
<tr>
<td>Total Externality</td>
<td>-1.186</td>
<td>105</td>
<td>.238</td>
</tr>
</tbody>
</table>

*E = External attributions (context and luck)
*I = Internal attributions (ability and effort)
** Significance at .01

Table 4.7: Univariate T-Tests of all Sample Variables Comparing Students with LD and Students with no LD

To test the second null hypothesis listed above, that race, gender, SES, and age would have no effect on college students’ self-esteem, locus of control, and integrated time perspective, a multiple regression analysis on the total sample was conducted.

It is important to note that race was not factored into the multiple regression equation because of the lack of diversity in the sample. As shown in Table 4.1, 101 of the 107 students (94%) were White; none of the other racial
groups consisted of enough subjects for meaningful analyses. Therefore, no conclusions can be made about the effects of race based on this sample.

Before discussing the results of the multiple regression analysis, it is also important to understand how the socioeconomic status (SES) scores were obtained. Students provided information on their parent(s)' highest level of education attained and current occupation. These ratings were then coded according to Hollinghead’s (1975) classification system. Hollingshead (1975) defined five major social classes along with corresponding scores: 1) Major business and professional (55-66); 2) Major business, minor professional, technical (40-54); 3) Skilled craftsmen, clerical workers (30-39); 4) Semi-skilled workers (20-29); 5) Unskilled laborers (8-19). For this sample, all five of the social classes within the Hollingshead Index were represented with a mean score of 33.05.

In the multiple regression analyses, gender, SES, and age were treated as predictor variables while self-esteem, hope, continuity, time utilization, and total externality were treated as separate dependent variables. A separate regression analysis was performed for each dependent variable. Results show that gender, SES, and age had no significant effect on any of the dependent variables (Table 4.8).

Pearson type correlations also were calculated to examine the possible relationships of age, SES, and gender with self-esteem, hope, continuity, time utilization, and total externality. Only one significant correlation existed in this sample. The variable of continuity was positively correlated with age. While
significant, the correlation is relatively small (.206), and therefore should be interpreted with caution.

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Esteem</td>
<td>.100</td>
<td>3</td>
<td>.960*</td>
</tr>
<tr>
<td>Hope</td>
<td>2.029</td>
<td>3</td>
<td>.114*</td>
</tr>
<tr>
<td>Continuity</td>
<td>2.144</td>
<td>3</td>
<td>.099*</td>
</tr>
<tr>
<td>Time Utilization</td>
<td>.545</td>
<td>3</td>
<td>.653*</td>
</tr>
<tr>
<td>Total Externality</td>
<td>1.174</td>
<td>3</td>
<td>.323*</td>
</tr>
</tbody>
</table>

*Predictor variables = Age, Gender, and SES

Table 4.8: Multiple Regression Analysis To Determine the Effects of Age, SES, and Gender on Self-Esteem, Hope, Continuity, Time Utilization, and Total Externality (All Subjects)

No other correlations between variables were significant (Table 4.9).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Age</th>
<th>SES</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Esteem</td>
<td>-.051</td>
<td>-.007</td>
<td>-.007</td>
</tr>
<tr>
<td>Hope</td>
<td>-.161</td>
<td>.163</td>
<td>-.057</td>
</tr>
<tr>
<td>Continuity</td>
<td>.206</td>
<td>.121</td>
<td>.095</td>
</tr>
<tr>
<td>Time Utilization</td>
<td>-.090</td>
<td>.081</td>
<td>.056</td>
</tr>
<tr>
<td>Total Externality</td>
<td>.057</td>
<td>-.005</td>
<td>-.178</td>
</tr>
</tbody>
</table>

Table 4.9: Pearson Correlations Between the Demographic Variables of Age, SES, and Gender, and the Measured Variables of Self-Esteem, Hope, Continuity, Time Utilization and Total Externality
CHAPTER 5

DISCUSSION

Overview

The purpose of this study was to investigate whether specific factors (i.e. self-esteem, locus of control, and integrated time perspective) could be identified which differentiate students with learning disabilities from their peers who do not have a learning disability. Pre-college students with learning disabilities have been shown to have lower self-esteem (i.e. a lower evaluation of one's self-worth), a more external locus of control (i.e. belief that performance can be attributed to factors outside of personal control), and a poorer integrated time perspective (i.e. more difficulty in setting goals, using time efficiently, and having hope) when compared to their non-learning disabled peers. Since these traits have been shown to negatively impact career development and academic achievement, this study sought to determine if this pattern persisted in a sample of college students with learning disabilities. This study was designed to focus on the growing number of college students with learning disabilities who attend post-secondary institutions which offer specialized support services (tutorial and course guidance assistance), but do not offer comprehensive learning disability
programs (e.g. individualized instruction, diagnostic assessment, counseling, and remediation classes).

The empirical investigation of the college student learning disabled population is important because 91% of United States college students with learning disabilities attend colleges which do not offer specific learning disability programs (Mangrum and Strichart, 1988), yet only a few researchers have studied college students with learning disabilities attending post-secondary institutions without comprehensive learning disability programs (e.g. Cowen, 1988; Smith, 1992). In addition, most of the research which has been conducted on college students with learning disabilities has focused on their academic strengths and weaknesses, although there is evidence suggesting that learning disabled children's non-academic problems with self-esteem, locus of control, and integrated time perspective continue into adulthood (Biller, 1985; Buchanon and Wolf, 1986; Mellard and Hazel, 1992; Saracoglu, et al., 1989). It was believed that if this research population showed evidence of these particular problems, there would be implications for the type of support services that are provided to them. Specifically, counseling would be recommended to improve self-esteem, alter locus of control, enhance time utilization and goal-setting skills, and increase sense of hope.

In addition to the examination of the relationship between learning disabilities and self-esteem, locus of control, and integrated time perspective, the effects of various other factors such as the student's gender, age, and
socioeconomic status on self-esteem, locus of control, and integrated time perspective also were investigated.

The sample for this study was drawn from Kent State University which offers special support services for qualified students with learning disabilities, but does not provide a comprehensive learning disability program. A total of 51 students with learning disabilities and 56 students with no learning disability were administered a measure of self-esteem (the Rosenberg Self-Esteem Scale; Rosenberg, 1965), a measure of locus of control (the Multidimensional-Multiattributational Causality Scale; Lefcourt, 1981), and three measures of integrated time perspective (the Hope Scale; Snyder, 1991; the Time Utilization Scale; Wessman, 1973; and the Long-Term Personal Direction Scale; Wessman, 1973). Additional demographic and personal information was collected from each student. Data were analyzed to test the following hypotheses:

1. College students with learning disabilities will have a significantly lower global self-esteem when compared to college students with no learning disabilities.

2. College students with learning disabilities will have a significantly more external locus of control as compared to college students with no learning disabilities.

3. College students with learning disabilities will have a significantly poorer integrated time perspective (i.e. time utilization, continuity, and hope) as compared to college students with no learning disabilities.
4. Demographic factors (i.e. age, gender, race, and socioeconomic status) will be significantly related to the variables of self-esteem, locus of control, and integrated time perspective.

**Hypothesis #1**

The first research hypothesis questioned whether or not there were differences in global self-esteem between college students with learning disabilities and their non-learning disabled peers. In this sample, these two groups did not differ along the dimension of self-esteem. These findings would suggest that the low self-esteem present in prior research on elementary and secondary students with learning disabilities may not persist in college students with learning disabilities. As mentioned previously, several researchers have found that as students with learning disabilities mature, the differences in self-esteem between themselves and their non-learning disabled peers diminishes (Silverman and Zigmond, 1983; Tollefson et al., 1982). However, Huntington and Bender (1993) warn that not enough research in this area has been conducted in order to provide conclusive evidence. This research corroborates the results of Silverman and Zigmond (1983) and provides further evidence that self-esteem may increase for students with learning disabilities as they mature. Huntington and Bender (1993) explain that as students with learning disabilities grow older they may base their self-esteem more on extracurricular activities and less on their academic performance which leads to an overall increase in global self-esteem.
It should be noted, however, that the measurement of self-esteem, however, may be problematic because students may be providing socially acceptable answers rather than their personal truths. Gable (1986) reported that self-report measures of affective traits are less reliable than instruments that measure academic or cognitive traits because of the social desirability of the items presented. As they mature, students with learning disabilities may become more aware of answers which are socially acceptable, or they may have a greater need to “look good”. Researchers know very little about the response characteristics of college students with learning disabilities in regard to self-report instruments.

Another issue to consider may be that college students with learning disabilities may differ significantly from students who choose not to go to college in respect to self-esteem. No studies to date have examined possible differences between students with learning disabilities who choose to attend college versus students who choose not to attend.

Hypothesis #2

The second hypothesis tested for group differences in college students’ locus of control. Previous research consistently has shown that pre-college students with learning disabilities exhibit a more external locus of control than their non-learning disabled peers (e.g., Rogers and Saklofske, 1985; Tarnowske and Nay, 1989). Pre-college students with learning disabilities tend to attribute their achievement to factors such as luck or ease of task rather than internal factors such as their own ability or effort. This finding was not supported by this
study in that there were no statistically significant differences between the two groups regarding external versus internal attributions. College students with learning disabilities may represent not show the characteristic externality so often discussed in research on the pre-college population. As with the self-esteem construct, one problem with the measurement of locus of control is that students may be providing socially acceptable answers and that college students may be more aware of the social desirability of the items presented.

However, two differences in attributional patterns were noted between the two groups. Students with no learning disabilities attributed their success and failure to effort significantly more than students with learning disabilities and they attributed their success to internal attributes (ability and effort) more than students with learning disabilities. However, these findings need to be interpreted with caution given that these results came from t-tests after a non-significant MANOVA. These particular results merit additional investigation. If these results are assumed to be significant, they are consistent with previous findings concerning pre-college students with learning disabilities (Aponik and Dembo, 1983). Students with learning disabilities tend not to attribute success or failure to their own effort. Tarnowske and Nay (1989) suggests that students with learning disabilities experience “learned helplessness” because increased effort does not necessarily lead to better results. In this study, it appears that this attribution problem may persist in a sample of college students with learning disabilities and that it may lead to a sense of “learned helplessness”.

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Hypothesis #3

The third hypothesis tested for group differences in integrated time perspective (i.e. time utilization, temporal continuity, and sense of hope).

Researchers and theorists claim that adolescents with learning disabilities have: (1) poorly developed planning and organizational skills (Mellard and Hazel, 1992); (2) difficulty committing to future possibilities (Torgeson, 1977); (3) an inability to use past experience as a predictor of future performance (Tollefson et al., 1982); and, (4) less realistic reactions to prior experience (Robbins and Harway, 1977). Unfortunately, no theorists or researchers have speculated on the concept of hope in respect to students with learning disabilities. The findings of this study did not corroborate the findings presented above. College students with learning disabilities did not differ from their non-disabled peers or published normative groups in respect to time utilization, temporal continuity, or hope.

One possible reason for this discrepancy may be due to maturity level. Past research was conducted on high school adolescents with learning disabilities while this research focused solely on college students. As students progress developmentally, they may utilize time more efficiently, have greater ability to set goals, and may be more hopeful. Another possible reason for this discrepancy may relate to changing philosophies of educators. Turnbull and Turnbull (1985) state that special educators often have emphasized remediation and deemphasized independence in the education of children with disabilities. As a result, these educators have overlooked the need to give adolescents experience in making decisions and setting goals. According to Vogel (1996),
however, there has been a trend in special education over the past 10 years to emphasize independence in order to build the child's self-esteem and mastery.

**Hypothesis #4**

The fourth hypothesis examined the possible relationship of age, gender, race, and socioeconomic status to the college student's self-esteem, locus of control, and integrated time perspective. These demographic variables were chosen for investigation based on the review of literature in which several studies indicated that these variables may have an effect on the constructs under investigation (Bachman and O'Malley, 1984; Coleman, 1985; Cottle and Kleinberg, 1974; Marsh, Parker, and Barnes, 1985; Wylie, 1979). It is important to note that the present sample did not include enough non-White students to allow for a meaningful analysis with respect to race.

In this study, the demographic variables of age, gender, and socioeconomic status were not related to the constructs of self-esteem, locus of control, or integrated time perspective. One possible reason for discrepancy between this finding and previous research may be due to differences in the study samples. Again, previous research had been primarily conducted on children and adolescents while this study included only college students. This finding suggests that the effects of age, gender, and socioeconomic status may decrease with increasing age of the sample.

**Correlations Among the Variables**

The present study examined whether significant relationships existed between the constructs of self-esteem, locus of control (total externality), time
utilization and temporal continuity. Marsh, Barnes, Cairns, and Tidman (1984) found that self-esteem significantly related to locus of control in that self-esteem was negatively correlated with externality. In addition, researchers have found that time utilization, temporal continuity, and hope are empirically related to locus of control (Thayer, Gorman, Wessman, Schmeidler, and Mannucci, 1975; Wolf and Savickas, 1985). Wolf and Savickas (1985) reported that more "adaptive" time perspective significantly relates to attributing achievement success to an individual's effort and ability and not to the characteristics of the task or luck (which suggests a negative correlation between "adaptive" time perspective and externality). One final significant relationship reported in the literature is between self-esteem and hope. Snyder (1991) found that hope was significantly and positively correlated with self-esteem.

The findings of this study indicate that all five major constructs were significantly correlated with each other. Self-esteem, time utilization, continuity, and hope were all positively correlated, while these same four variables were negatively correlated with total externality. These results provide further support for the previously-reported relationships between these variables.

Limitations

Several factors may have had a limiting effect on the findings of this study. One major limitation of this study is the representativeness of this particular sample of college students with learning disabilities. The director of the learning disability support services at Kent State University stated that the majority of students with learning disabilities who volunteered to participate in this study...
were “well above average” in achievement motivation and grade point average. Therefore, this sample may not be representative of college students with learning disabilities at Kent State or elsewhere. If this sample were more representative of college students with learning disabilities, it may be expected that self-esteem scores would be lower and locus of control scores more external. Research has suggested that self-esteem and locus of control is related to achievement motivation and grade point average (Biller, 1985; Rotter, 1966; Wolf and Savickas, 1985). In addition, this sample was not ethnically or racially diverse which also limits its generalizability and representativeness.

A second limitation of this investigation is that the sample size of college students with learning disabilities in this study was relatively small (N=51) which could lead to spurious statistical results. However, the sample size for this study is typical for studies using students with learning disabilities and the sample size did meet the power analysis criteria (N=46).

In addition, the reliability of the instruments used in this study may have affected the results. It was assumed that all subjects responded to the instruments honestly and sincerely. However, Gable (1986) notes that self-report measures of affective, reflective traits are less reliable than instruments that measure academic or cognitive traits. Students may have provided more socially desirable responses to the items presented rather than their personal truth. One student responded to the item, “All in all, I am inclined to feel that I am a failure”, by saying, “Who in the world would agree with that statement?”. Researchers know very little about the response characteristics of college
students with learning disabilities with respect to self-report inventories. The inclusion of a social desirability measure would have been beneficial.

Finally, the definition of learning disability is not universally accepted by researchers or theorists (Adelman and Vogel, 1992). Learning disabilities is a term that refers to a heterogeneous group of disorders. In this study, a learning disability was determined through administration of testing by a licensed professional. However, no specific diagnosis other than learning disability was given to these students. Therefore, it is impossible to determine whether specific disorders (e.g. dyslexia) have different psychological ramifications. In addition, the lack of commonality among students with learning disabilities makes it difficult to compare findings across studies.

Implications for Counseling

Researchers and counselors have not clearly understood if college students with learning disabilities have lower self-esteem, a more external locus of control, more difficulty with goal setting, less adaptive utilization of time, and/or less hope than their peers who are not learning disabled. Research, on pre-college samples, has shown that these students have low self-esteem, an external locus of control, and a poorly integrated time perspective which negatively effects the academic, social, and vocational progress of these students. If college students with learning disabilities possessed these traits, it may impact the type of services provided to these students. As previously mentioned, this sample of college students with learning disabilities did not report low self-esteem, an external locus of control, or a less adaptive time perspective
when compared to their non-learning disabled peers. However, students with learning disabilities did appear to attribute their success or failure to effort less than their non-learning disabled peers.

If we assume this sample to be representative, these findings hold at least two important implications for counseling. First, college counselors should not assume that students with learning disabilities are struggling with low self-esteem, external locus of control, or maladaptive time perspective. These findings also suggest that appropriate remediation may be occurring at the high school level, although this research did not investigate these possible interventions. Secondly, college counselors may find it helpful to attend to the student's effort attributions. Students with learning disabilities may not believe that increased effort will lead to increased achievement success which could negatively impact their level of motivation.

Instead of examining self-esteem, locus of control, and integrated time perspective, Hitchings, Luzzo, Retish, Horvath, and Ristow (1998) suggest that it may be more important for career counselors to consider whether a student fully understands the limitations of his or her disability. Individuals who do not fully understand their disability, fail to anticipate problems, or do not develop compensatory strategies may have difficulty finding and maintaining employment. Individuals who have identified their personal strengths and weaknesses can make informed career decisions and provide accurate information to employers (Ryan and Price, 1992).
Directions for Future Research

One limitation of this study that was mentioned was the representativeness of this particular sample. A replication of this study is recommended which would sample a larger, more diverse group of students from several universities. A larger, more diverse sampling would provide more generalizable results and might allow for examination of “less motivated” students with learning disabilities.

Secondly, it is recommended that the response characteristics of college students with learning disabilities be examined by including a measure of social desirability. It is possible that students with learning disabilities are highly invested in providing socially desirable responses due to past stigmatization.

A study comparing students with learning disabilities who choose to go to college versus students who choose not to go to college on the variables of interest may provide fruitful information. Do the factors of self-esteem, locus of control, and integrated time perspective influence a high school student's academic and vocational choices? Research has suggested that high self-esteem, internal locus of control, and a well integrated time perspective positively influence academic and vocational aspirations (Barrett and Tinsley, 1977; Biller, 1984; Savickas, Silling, and Schwartz, 1984; Stebbing, 1985; Super, 1983;).

Another case for future research would be a qualitative study exploring possible interventions that have proven to be helpful to students in building self-esteem, increasing internal sense of control, and developing goal-setting and time utilization skills. The study would provide an in-depth exploration of a
variety of factors, including parental interventions, academic assistance, tutoring, counseling, and peer influences.

Finally, a comparative study examining the differences between high school students with learning disabilities and college students with learning disabilities might prove to be very informative. Many of the studies on elementary and secondary students with learning disabilities concerning self-esteem, locus of control, and integrated time perspective are dated. It is possible that changing philosophies of education have positively impacted students in terms of these variables. A comparative study would provide direct evidence on whether there are differences between the two groups.
REFERENCES


Appendix A

PERSONAL INFORMATION SHEET
When appropriate, please circle the correct response, or if a blank is provided, please fill in the blank.

1. Sex: Female Male

2. Age: ______

3. Ethnicity: African American Caucasian Hispanic Native American Asian American Other: _________________________

4. Academic Status: Freshman Sophomore Junior Senior

5. Current Academic Major: _____________________________

6. College Grade Point Average (GPA): ______

7. Have you been diagnosed with a learning disability? Yes No

8. If yes, how old were you when first diagnosed? Age ______

9. Parent's or Guardian's highest level of education:
   Mother: Elementary Secondary College Graduate Professional
   Father: Elementary Secondary College Graduate Professional
   Guardian: Elementary Secondary College Graduate Professional

10. Your parent's or guardian's current employment?
    Mother: ______________________
    Father: ______________________
    Guardian: ______________________
Appendix B

ROSENBERG SELF-ESTEEM SCALE
Directions: Read each item carefully. Using the scale shown below, please select the number that indicates how much you agree or disagree with each statement and put that number in the blank provided.

1 = Strongly Disagree  
2 = Disagree  
3 = Agree  
4 = Strongly Agree

1. On the whole, I am satisfied with myself.
2. At times, I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I certainly feel useless at times.
7. I feel that I'm a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself.
9. All in all, I am inclined to feel that I am a failure.
10. I take a positive attitude toward myself.
Appendix C

MULTIDIMENSIONAL MULTIATTRIBUTIONAL CAUSALITY SCALE
Directions: Read each item carefully. Using the scale shown below, select the number that indicates how much you agree or disagree with each statement and place that number in the space provided.

1 = I Disagree  
2 = I Mildly Disagree  
3 = I Agree and Disagree Equally  
4 = I Mildly Agree  
5 = I Agree

__ 1. When I receive a poor grade, I usually feel that the main reason is that I haven't studied enough for that course.

__ 2. If I were to receive low marks it would cause me to question my academic ability.

__ 3. Many of the times that I have gotten a good grade in a course, it was due to the teacher's easy grading scheme.

__ 4. Sometimes my success on exams depends on some luck.

__ 5. In my case, the good grades I receive are always the direct result of my efforts.

__ 6. I feel that certain of my abilities have been crucial to my obtaining good grades.

__ 7. In my experience, once a professor gets the idea you're a poor student, your work is much more likely to receive poor grades than if someone else handed it in.

__ 8. Some of my lower grades have seemed to be partially due to bad breaks.

__ 9. When I fail to do as well as expected in school, it is often due to a lack of effort on part.

__ 10. When I can't understand some material presented at school, I sometimes conclude that I don't have the ability to succeed at it.

__ 11. Some of my good grades may simply reflect that these were easier courses than most.
_12. I feel that some of my good grades depend to a considerable extent on chance factors; such as having the right questions show up on the exam.

_13. When I receive good grades it is because I have studied hard for that course.

_14. I feel that my good grades reflect directly on my academic ability.

_15. Often my poorer grades are obtained in courses that the professor has failed to make interesting.

_16. My academic low points sometimes makes me think I was just unlucky.

_17. Poor grades inform me that I haven't worked hard enough.

_18. If I were to get poor grades I would assume that I lacked ability to succeed in those courses.

_19. I sometimes think a teacher thinks more highly of my work just because he or she already feels I'm a good student.

_20. Sometimes I feel that I have to consider myself lucky for the good grades I get.

_21. Very often I find I can overcome most obstacles in the path of academic success if I work harder.

_22. I usually feel that the good grades I get are due to my having skill at understanding those particular subjects.

_23. Some low grades I've received seem to me to reflect the fact that some teachers are just stingy with marks.

_24. Some of my bad grades may have been a function of bad luck, being in the wrong course at the wrong time.
Appendix D

THE LONG-TERM PERSONAL DIRECTION SCALE
Read each item carefully. Using the scale shown below, please select the number that you believe indicates how well the statement describes you and put that number in the blank provided.

1 = Not At All  
2 = Very Little  
3 = A Little  
4 = Some  
5 = Quite A Lot  
6 = A Lot  
7 = Perfectly

1. I move in an orderly way towards goals set long ahead of time.  
2. I feel stuck in a rut and unable to get out of it.  
3. I am very certain of who I am and where I am going in  
4. I feel the future is an empty vacuum sucking me in.  
5. I am aware of a sense of continuity in my life.  
6. I go into the future like a cork floating on the sea, being pushed by the tide.  
7. I plan much of my life around a few main goals.  
8. I feel my life is a series of starts and stops—stuck, moving, then stuck again.  
9. I have my future well mapped out.  
10. I keep my future open and uncommitted.  
11. I feel continuity between one year and the next.  
12. I shy away from long-term responsibilities.  
13. I feel that my life is like a continuous, uncut thread.  
14. I feel that life has no pattern or reason.  
15. I set goals for myself that will take months or years to reach.
THE LONG-TERM PERSONAL DIRECTION SCALE (continued)

16. I think of the future as empty, hollow, and dark.

17. I feel that others are patient with me.

18. I disregard the future and take things as they come.

19. I try to imagine what life in the United States will be like in the future.

20. I feel that time is broken, chopped up, and without direction.
Appendix E

THE TIME UTILIZATION SCALE
Directions: Read each item carefully. Using the scale shown below, please select the number that you believe indicates how well the statement describes you and put that number in the blank provided.

1 = Not At All  
2 = Very Little  
3 = A Little  
4 = Some  
5 = Quite A Lot  
6 = A Lot  
7 = Perfectly

1. I work fast and efficiently according to schedule.
2. I procrastinate so long that a great deal of work must be crowded into a short space of time.
3. I apportion my time so that I can manage each day to do everything want.
4. I work below my capacity, and do less than I could.
5. I plan and schedule time far in advance.
6. I waste lots of time before I finally settle down to business.
7. I overestimate the amount of time that I need to do my work.
8. I am late in almost everything I do.
9. I meet self-set deadlines by beginning and finishing tasks at the pre-arranged times.
10. I take my time in everything I do.
11. I fix one objective firmly in my mind and aim toward it without deviation.
12. I work toward first one goal and then another without ever focusing on any particular one.
13. I schedule my activities several days or weeks in advance.
TIME UTILIZATION SCALE (continued)

15. I think out and plan the most efficient way to use my time.
16. I am ready for anything, prepared for nothing.
17. I set right to work at the jobs that have to be done.
18. I drift from thing to thing, with no particular plan in mind.
19. I finish my work well before the deadline.
20. I never begin or finish a task on time.
Appendix F

THE HOPE SCALE
Directions: Read each item carefully. Using the scale shown below, please select the number that best describes you and put that number in the blank provided.

1 = Definitely False  
2 = Mostly False  
3 = Mostly True  
4 = Definitely True

1. I can think of many ways to get out of a jam.
2. I energetically pursue my goals.
3. I feel tired most of the time.
4. There are lots of ways around any problem.
5. I am easily downed in an argument.
6. I can think of many ways to get the things in life that are most important to me.
7. I worry about my health.
8. Even when others get discouraged, I know I can find a way to solve the problem.
9. My past experiences have prepared me well for my future.
10. I've been pretty successful in life.
11. I usually find myself worrying about something.
12. I meet the goals that I set for myself.
You have been provided with survey packets to distribute to students for this research project. Each packet contains:

* a letter to students that describes the study
* 1 manilla envelope containing a demographic sheet and a 5-page questionnaire

Please keep these materials in a secure place in your office and keep all completed materials in the gray box provided. If possible, place the gray box in locked, secure room at the end of each day.

Please follow these procedures when distributing the test materials:

* Distribute the survey packets to all students who are registered with SDS as having a documented learning disability (i.e. avoid selectively choosing certain students).
* Hand the packet to the student at the end of your appointment with them and read the following script to them:

Our office is participating in a research study concerning students with learning disabilities. Please read this letter that describes the research and if you would like to participate, fill out the information sheet and survey enclosed in this envelope. Completing the survey takes about 25 minutes. Your participation is entirely voluntary and confidential and refusal to participate will not impact your services here at SDS.

After reading the script, show the student to the designated test-taking area. Students are to fill materials out in the SDS office. Once the student has completed the survey, they have been instructed to return the survey to the front desk, sealed in the manilla envelope provided. The completed survey material is to be placed in the gray box provided.

If a student has questions or concerns about the research, please listen to their concerns, and relay this to the researcher. Students may contact the researcher themselves by calling (440) 729-4061 or writing to: 13401 Shady Lane, Chesterland, OH, 44026.

If you have any questions or concerns, please feel free to call me at (440) 729-4061 or you can leave a message for me at (330) 972-7082. I will check in at least once a week to answer questions and to pick up finished materials.

**PLEASE NOTE:**

* Participation in voluntary, no student should be coerced into completing the survey.
* No names should appear on survey materials.

Thank you for your assistance,

John P. Harshbarger
Appendix H

STUDENTS WITH LEARNING DISABILITIES CONSENT LETTER
Dear Student,

Would you like the chance to win $50 and provide some helpful information at the same time. Please read this letter carefully to find out how.

I am conducting my doctoral dissertation research, under the direction of Dr. Richard K. Russell at The Ohio State University, to better understand some of the issues facing college students with learning disabilities. We, along with Kent State University’s Student Disability Services, would appreciate your participation in this study, as your input will provide information that will enable us to offer some concrete suggestions about the needs of college students with learning disabilities to university instructors, advisors, administrators, and counselors.

This research is not expected to involve any risks of harm any greater than those ordinarily encountered in daily life. You will be asked to complete a personal information sheet as well as complete a questionnaire taking approximately 25 minutes.

Your participation in this study, as well as any information you provide, will be kept completely confidential. Please do not put your name on any of the response sheets. Your identity will not be revealed in any report or publication resulting from this research. Also, your willingness to participate is completely voluntary. There is no penalty for refusal to participate, and you are free to withdraw from this study at any time.

If you choose to participate, please complete all the forms of this survey. Completed surveys should be sealed in the envelope provided and returned to the front desk of SDS. Please keep this letter for your reference. If you choose not to participate, please drop these blank forms off at SDS at your convenience.

In appreciation for your cooperation, any student who completes the survey and submits the attached index card will be entered in a raffle drawing for a grand prize of $50. (There will be 2 winners!). The drawing will take place December 11th, 1997. Please place your name and phone number on the index card provided and drop it off along with your completed survey at the Student Disability Services Office.

The results of this study will be available from SDS in approximately 4 months. If you would like to meet with me to discuss the results or if you have any questions about this research, you may contact me (John Harshbarger) at (440) 729-4061 or Dr. Richard K. Russell in the Counseling Psychology Department at the Ohio State University at (614) 292-0533. Thank you very much.

Sincerely,

John P. Harshbarger M.A.  
Doctoral Candidate at The Ohio State University  
13401 Shady Lane, Chesterland, OH 44026  
(440) 729-4061
This concludes your participation in the study. Thanks so much for your help. Now that you have finished the questionnaires, I can explain more to you about the whole purpose of the study. I could not do so before now without biasing your responses.

This research project is being conducted by John Harshbarger M.A. as part of his dissertation research under the direction of Dr. Richard Russell of The Ohio State University. This investigation sought to examine the self-esteem, locus of control, and integrated time perspective of college students with learning disabilities. Self-esteem is defined as the degree to which you feel that you are a worthwhile person. Locus of control refers to the extent to which you believe events are a result of your own actions (e.g. you received a "A" in math due to your high math ability). And integrated time perspective refers to your capacity to set goals, to use time efficiently, and to have hope.

Researchers have reported that, in general, pre-college students with learning disabilities may have lower self-esteem, a more external locus of control (e.g. attributing their success in school to luck), and greater difficulty in setting goals, utilizing time efficiently and being hopeful when compared to students with no learning disability. Research has also shown that these factors may negatively influence one's academic, vocational, and social success.

However, very little research has been conducted with college students with learning disabilities. Therefore, the purpose of this study is to investigate whether some of these non-academic issues persist in college students with learning disabilities. If this study demonstrates that these factors do persist, it may provide an impetus for college support services to provide programs to address these specific issues of students with learning disabilities.

Again, I want to thank you for participation today. It is very important that you do not talk about this experiment with anyone once you leave this room. If people who participate later in the study are aware of its purpose, their answers may be biased.

You may direct any question you may have to John Harshbarger (440) 729-4061 (leave a message if no answer) or Dr. Richard Russell (614) 292-0533. And if any personal issues came up for you today that you would like to discuss please feel free to contact the Kent State University Counseling Center at 672-8463.

Sincerely,

John P. Harshbarger M.A.
Appendix J

CONTROL SUBJECTS CONSENT LETTER
Dear Student,

Would you like the chance to win $50 and provide some helpful information at the same time? Please read this letter carefully to find out how.

I am conducting my doctoral dissertation research, under the direction of Dr. Richard K. Russell at The Ohio State University, to better understand some of the issues facing college students with learning disabilities. We, along with Kent State University’s Student Disability Services, would appreciate your participation in this study, as your input will provide information that will enable us to offer some concrete suggestions about the needs of college students with learning disabilities to university instructors, advisors, administrators, and counselors.

While the majority of participants in the study must have a documented learning disability, we are also seeking to gather information from students without a learning disability. This research is not expected to involve any risks of harm any greater than those ordinarily encountered in daily life. You will be asked to complete a personal information sheet as well as complete a questionnaire taking approximately 25 minutes.

Your participation in this study, as well as any information you provide, will be kept completely confidential. Please do not put your name on any of the response sheets. Your identity will not be revealed in any report or publication resulting from this research. Also, your willingness to participate is completely voluntary. There is no penalty for refusal to participate, and you are free to withdraw from this study at any time.

If you choose to participate, please complete all the forms of this survey. Completed surveys should be sealed in the envelope provided and given to the experimenter when you have finished. Please keep this letter for your reference. If you choose not to participate, please return these blank forms to the experimenter.

In appreciation for your cooperation, any student who completes the survey and submits the attached index card will be entered in a raffle drawing for a grand prize of $50. (There will be 2 grand prize winners!). The drawing will take place December 11th, 1997. Please place your name and phone number on the index card provided and place it in the box provided by the experimenter.

The results of this study will be available from the Student Disability Services Office in approximately 4 months. If you would like to meet with me to discuss the results or if you have any questions about this research, you may contact me (John Harshbarger) at (440) 729-4061 or Dr. Richard K. Russell in the Counseling Psychology Department at the Ohio State University at (614) 292-0533. Thank you very much.

Sincerely,

John P. Harshbarger M.A.
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13401 Shady Lane, Chesterland, OH 44026
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