Learning Disabilities Versus Motivational Problems: Creating a Balanced Learning Assistance Program

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LOYOLA UNIVERSITY CHICAGO

LEARNING DISABILITIES VERSUS MOTIVATIONAL PROBLEMS:
CREATING A BALANCED LEARNING ASSISTANCE PROGRAM

A THESIS SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
MASTER OF ARTS

DEPARTMENT OF EDUCATIONAL LEADERSHIP AND POLICY STUDIES

BY
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I wish to thank all of those who have been patient and supportive throughout my research and writing of this project. Thank you to Dr. Sharon Silverman for sharing your expertise in learning assistance. To my parents who have always had faith in me, I thank you. And to Dr. Terry Williams, I especially thank you for giving of your time, knowledge and energies to see me through to the end.
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Development of Learning Assistance Centers in Higher Education

In an attempt to help students adjust to the academic demands of higher education, many American colleges and universities began to develop learning assistance centers in the 1970s (Maxwell, 1988, p. 105). As defined by Maxwell learning assistance refers to "...a program that helps all students and is based on a developmental philosophy..." (1994, p.v). This recent definition of learning assistance helps one to understand the difference between the current day learning assistance center and its earlier counterpart.

According to Boylan and White (1994) developmental education programs have existed since the beginning of American higher education. The first American college, Harvard College, which was founded in 1630 was also the first to offer remediation programs for entering students. Because books were written in Latin and most courses were taught in Latin there was a need to provide tutors for colonists who wished to attend Harvard (Boylan & White, 1994). Remedial education to help students learn Latin continued at Harvard and other institutions of higher education well into the 18th century.

During the 19th century a movement to improve life for the common citizen included opening the doors to higher education. Because most institutions were self-
sustaining, previous education or preparation for college was deemed less important than the student's ability to pay the college tuition. Remediation began with individual tutors for underprepared students, but the problem became so overwhelming that tutors alone were not sufficient. In 1849, the University of Wisconsin established the first college preparatory department in the United States. This program provided remedial courses in reading, writing and arithmetic. By 1889, college preparatory programs were offered in more than 80 percent of colleges and universities in the United States. This growth continued into the 1900s as more colleges and universities opened their doors, especially to underprepared populations that included women and African-Americans (Boylan & White, 1994).

From the beginning remedial reading was the basis for learning assistance on the college campus. Reading programs resembled psychology laboratories where devices such as the tachistoscope were used. One progressive program focused on "instrumentation and instruction regarding eye movements and vocal processes" (Enright, 1994, p.32). By the 1950s, programs began to focus on the student as a whole. A student's ability, personality and study techniques were considered interactive processes that could affect his/her academic achievement. Application of theories and philosophies such as "...self-paced, individualized learning became an actuality with the implementation of programmed instruction..." (Enright, 1994, p. 34) in the 1960s and 1970s. Learning Assistance Centers then became systematized in the 1970s and 1980s when philosophies were applied and multiple functions were pulled together to help students meet the academic challenge "while dedicating itself [learning assistance] to
improving higher education" (Enright, 1994, p. 37). Such philosophies and functions continue throughout current day learning assistance centers. Despite the historical need for remediation in America's colleges and universities, the professional literature largely ignored remediation as a viable activity or function on college campuses. But increased access to higher education in the 1960s and 1970s caused "remediation to emerge as a significant factor in the curriculum and social agenda of American higher education" (Clowes, 1994, p. 9). According to Enright, Learning Assistance Centers as a formalized concept emerged in the early 1970s (1994).

Although "learning centers are as varied as the institutions and students they serve" (Maxwell, 1988, p. 104), the functions and goals to assist students are commonly shared. The philosophy of many learning centers is that people learn in different ways and at different rates and educators must be prepared to address those differences (Capps, 1984). A common goal among learning centers is to assist students to learn more efficiently and effectively. When students seek help to improve their academic performance, it is important to investigate factors that may prevent them from fulfilling their potential.

According to Mangrum and Strichart (1984) many postsecondary institutions face financial crises due to decreases in enrollments and increases in operational costs. This suggests that both attracting and retaining students are becoming increasingly important. One means of improving enrollment is to attract new, non-traditional student populations to higher education.
Two potential groups of non-traditional students who could benefit from postsecondary education include those with learning disabilities and those who experience motivational problems yet desire a college degree. The key to successfully educating these students lies in the institutions' abilities to challenge and support them once they are enrolled.

The task of educating students with learning disabilities is not only a point of interest for colleges and universities, it is also a federal mandate based on Section 504 of the Rehabilitation Act of 1973 which prohibits discrimination toward individuals with disabilities. Enrollment of students with learning disabilities in postsecondary institutions has increased dramatically and this trend is expected to continue (Aksamit, Morris & Leuenberger, 1987; Farrell & Harckham, 1988; Wilczenski, Gillespie-Silver, 1992). Yet, "the passage of federal guidelines to protect the rights of handicapped students does little to increase knowledge or to encourage positive attitudes among postsecondary educators" (Morris, Leuenberger & Aksamit, 1987, p. 58).

The federal guidelines which prohibited discrimination in education programs for those with learning disabilities were first addressed by elementary and then secondary education programs. As a result, such programs are rarely fully developed in the postsecondary setting. Those students who once received services throughout their elementary and secondary education are now adults who may be seeking a college education. According to Putnam (1984), few colleges were in compliance with Section 504 of the Vocational Rehabilitation Act of 1973. Today, more institutions may be complying, but the level of response is still inadequate.
Vogel and Adelman (1993) suggest that postsecondary institutions are responding to Section 504 in a variety of ways. They believe that each institution can be identified on a continuum. On one end of the continuum are those institutions which assign an individual to respond to students on an ad hoc basis as the need arises. "This person usually has limited knowledge, experience, time, staff, and resources to meet the needs of students with learning disabilities and primarily provides access services or refers students to generic services on campus" (p. 102). This type of institutional response is considered to be at the low end of the continuum.

On the other end of the continuum, a comprehensive institutional response to Section 504 involves providing services and publishing information regarding institutional policies and services for students with learning disabilities. Policies and procedures are developed and established based on student requests and need for modifications in institutional requirements. Also, the importance of an informed faculty and staff is recognized through campus-wide awareness training (Vogel & Adelman, 1993). In addition, a comprehensive institutional response includes the institutional support of a Learning Disabilities (LD) specialist to be involved in the admissions process, in program development and with a staff with expertise in learning disabilities who can work with students on an individual basis (Vogel & Adelman, 1993).

For those institutions at the low end of the continuum, "the first step is for counselors and other student services staff to gain a better understanding of the characteristics and needs of LD college students. The second step will be to develop and implement services and programs to meet LD students' special learning needs" (Miller,
McKinley & Ryan, 1979, p. 157). The learning disabilities literature suggests that the implementation of learning assistance programs which can address the needs of students with learning disabilities is critical to the academic success of this population.

There is also a growing need to help those students lacking motivation to succeed academically. It is often assumed that students who seek degrees in higher education are motivated to learn. Yet, with the growing need for a college degree to obtain a job, more students may be enrolling in institutions in hopes of doing a minimal amount of work to receive a degree (Wlodkowski, 1985, p. 4). The increase toward a consumer orientation in higher education allows for institutions to attract students and then to find ways for them to finish their classes. Keeping students enrolled "may be, in too many instances, more important than what they learn" (Wlodkowski, 1985, p.2).

Rather than focusing on helping students develop motivation, standards may be lowered, grades inflated, extra work is allowed to raise low test scores and reading and writing requirements are decreased. Such techniques are frequently used to help students "finish" a course. "This does nothing to enhance motivation and makes cursory course completion more paramount in the lens of students" (Wlodkowski, 1985, p. 4). Because motivation is an interactive process it is important that both students and faculty bring a certain level of motivation for the subject matter to the classroom. "Knowledge is not in and of itself motivating. It is the presentation and process of learning knowledge that can make it compelling" (Wlodkowski, 1985, p.5). This process should be the concern of the faculty, the student and the learning assistance professional.
The learning assistance professional can assist faculty to create methods that will help students want to learn, to design courses which make subject matter more stimulating, to develop positive attitudes toward learning and help students realize their growing competency (Wlodkowski, 1985). It is also important that those in learning assistance help students to understand and develop their own motivation while taking responsibility for effort, perseverance and concentration in classes.

The need to lower attrition rates and to meet Section 504 requirements raises concerns for academic support personnel who are often pressed with the task of fostering academic success for students at risk (Wilczenski & Gillespie-Silver, 1992). The most appropriate response for those facing the issues of helping such students is to become educated about those students, their needs, available resources and methods which will best fulfill institutional and student needs. If learning assistance professionals are unable to distinguish students with learning disabilities from students with motivational problems, those students most in need of assistance may not find the help needed to be academically successful.

Statement of the Problem

While there are many different variables that can be barriers to academic achievement, two primary factors which may account for needed academic improvement are lack of motivation and the presence of learning disabilities. It is important to identify which factors contribute to academic difficulty. Learning assistance professionals who are unaware of the characteristics of these areas of concern may not be effective in their work with students. In an effort to better serve students in need of academic assistance,
learning assistance professionals need to be aware of the differences between those students who do not achieve academically because of low motivation and those who battle with the frustrations of learning disabilities.

**Research Objectives**

The purpose of this research is to

1. Identify motivational theories and strategies utilized to help students who may be having motivational difficulties.
2. Define learning disabilities and present techniques used for helping college students achieve in spite of these disabilities.
3. Identify tools and techniques used to identify and assist students with learning disabilities and motivational problems in learning assistance programs.
4. Recommend strategies to integrate motivational assistance and learning disabilities assistance into a learning assistance center.

The following questions gave direction for research to meet the above objectives:

1. What is a learning disability?
2. What is a motivational problem?
3. What strategies are best applied to meet the special needs of students with learning disabilities or motivational problems?
4. How are learning assistance centers in higher education currently meeting the needs of students with learning disabilities or motivational problems?
The subsequent chapters of this study provide answers to the above questions. The literature reviewed in this study provides a substantial amount of information regarding learning disabilities and motivational problems which will serve as a framework for the analysis of data collected by the researcher.

**Overview of Thesis**

This study is organized into five chapters. This first chapter provides an introduction to the thesis. To elicit a better understanding of both motivational problems and learning disabilities, Chapter II focuses on theory and models needed to improve the knowledge base of those working with college students. The first focus of this section is on motivational theories. Intrinsic and extrinsic motivation, attribution theory and locus of control, and self-worth theory are all discussed.

To help those working with college students with motivational problems the review includes characteristics of these students and the tools used in their identification. Techniques based on attributional theory and self-worth theory are described and suggested for intervention with students having motivational problems.

The review of the literature continues with a focus on types of learning disabilities and the identification and assessment of college students with learning disabilities. The legal implications for institutions regarding learning disabilities are also included. The chapter concludes with suggestions for preparing faculty to identify students in need as well as techniques which can be used in classrooms to better meet the needs of all college students.
Chapter III describes the methodology used to conduct the research for this study. The development of a survey instrument, the sampling technique and pilot survey are all discussed. Also described are procedures followed for the protection of human subjects and the data collection and analysis procedures. The results of the survey, analyses of the data, and discussion of the results are included in Chapter IV.

Chapter V concludes the thesis with a summary, conclusions and specific recommendations for learning assistance professionals. Lastly, recommendations for future research are identified.
CHAPTER II

REVIEW OF LITERATURE

When considering the number of factors which can contribute to a student's academic success in higher education, the amount of information in the professional literature on these factors can be overwhelming. This chapter describes some of this information as it pertains to motivational problems and learning disabilities in college students. This chapter identifies three motivational theories and reveals how these are applied to students at the college level. Also addressed in the review are types of learning disabilities and the role of the institution to help such students succeed. Suggestions for faculty and learning assistance professionals are provided to help distinguish the best methods of helping students with motivational problems and learning disabilities.

Motivational Theories

Motivation as a problem can inhibit capable students from succeeding and/or reaching their fullest potential. This makes it necessary for those who work with college students to understand motivational theories in order to help those students to succeed.

Professionals in the college or university environment who work with students who have difficulty succeeding academically due to an insufficient
level of motivation for academic success need to be aware of motivational theories in order to better understand students and their difficulties. Theories that address intrinsic and extrinsic motivation, attribution, locus of control and self-worth concepts provide a basis for learning assistance professionals to understand the needs of students as well as the means for helping those students.

**Intrinsic - Extrinsic Theory**

The first theory to be considered is that of intrinsic motivation. Intrinsic motivation is that motivation which occurs due to the enjoyment of being involved in an activity. "An intrinsically motivating activity is one in which there is no apparent or compelling reason for doing the activity beyond the satisfaction derived from the activity itself" (Raffini, 1993, p. 64). By nature, humans have a desire to seek out challenges which they attempt to conquer. According to Raffini (1993), this desire to seek and conquer "is at the core of all intrinsically motivating activities" (p. 65). Such activities can be defined as autotelic.

An autotelic activity is defined as "having its goal within itself" (Ames & Ames, 1989, p. 52). The pleasure and enjoyment from the act itself are enough to move the person through the activity rather than the seeking of a reward. Ames and Ames' (1989) research identified seven characteristics experienced by those who are involved in an autotelic activity: "(1) that all of their minds and bodies are completely involved in what they are doing, (2) that their concentration is very deep, (3) that they know what they want to do, (4) that they know how well they are doing, (5) that they are not worried about failing, (6) that time is passing very quickly, and (7) that they have lost the ordinary
sense of self-consciousness and gnawing worry that characterize so much of daily life (Csikszentmihalyi, 1975)' (p. 54). The intrinsic reward lies in the "subjective feelings of pleasure and enjoyment" (Raffini, 1993, p. 66) that are derived from the experience. The state where individuals "become so completely absorbed with a task they're unaware of passage of time and physical surroundings" (Raffini, 1993, p. 66) is a phenomenon which researchers have identified as a flow experience.

Flow experience, according to Ames and Ames (1989), is intrinsically motivating because humans find enjoyment in functioning at their fullest capacity. Flow occurs when the challenge matches the individual's personal capacities or skill level. Because the nature of flow requires an unusual match between the person and the environment, people experience it rarely (Ames & Ames, 1989). According to research by Csikszentmihalyi (1975), 13% of men and women sampled claimed to have never experienced flow while 87% reportedly experienced flow only as a rare event. Of those 87%, less than 10% reported its occurrence on a daily basis (Ames & Ames, 1989; Raffini, 1993).

In an educational setting intrinsic motivation drives students to learn for the sake of learning or to conquer the academic challenge. The enjoyment of mastering educational material is enough to motivate students to actively seek knowledge, rather than focusing on the end result of a grade. "Intrinsically motivating activities are fueled by a need for human beings to feel competent and autonomous" (Raffini, 1993, p. 65). According to Raffini (1993), behaviors which are intrinsically motivated contain the elements of autonomy and freedom which humans often seek. Wlodkowski (1985) has
identified additional elements which lead to intrinsic motivation. Wlodkowski documents that students are more likely to be intrinsically motivated if their learning is self-determined, it meets an optimum challenge for the individual and they receive positive feedback regarding the activity.

Similarly, in a 1989 study by Lepper and Hodell, four primary sources of intrinsic motivation are defined: challenge, curiosity, control and fantasy. According to this framework, students are more likely to choose an activity which challenges their various skill levels when free of external constraints (Raffini, 1993). When considering an activity dubbed as challenging by a student, that student must be willing to risk failure, which is an "integral part of the learning process" (Raffini, 1993, p. 69). The second source of intrinsic motivation according to Lepper and Hodell is that of curiosity. This source suggests that a student's natural inquisitiveness regarding novel situations or those situations which are inconsistent with the student's experiences or expectations will "provoke curiosity and incite students' interests in resolving inconsistencies" (Raffini, 1993, p. 70). This is consistent with Csikszentmihalyi's statement that "...intrinsic motivation alerts us to several facts: (1) People are moved by curiosity and novelty; (2) people need to feel in charge of their actions; and (3) autonomy and self-determination will lead people to act in ways that often override the instructions built into their nervous systems by genes and by learning. In other words, intrinsic motivation highlights the existence of another system that determines behavior in addition to genetic programming and stimulus-response pathways. This other system is the self, a configuration in
consciousness that has its own needs and its own power to direct behavior" (Ames & Ames, 1989, p. 48).

The counterpart to intrinsic motivation is what is called extrinsic motivation. Rather than focusing on the pleasure derived from the activity, individuals who are extrinsically motivated emphasize the value of the ends of the action as well as the probability of reaching those ends. The goal becomes the reason for performing a particular behavior (Wlodkowski, 1986). According to behavioral psychology, extrinsic motivation is "behavior that is determined by physiological drives and by stimulus-response learning" (Ames & Ames, 1989, p. 46). In essence, a student who is given a reward for performing will continue to perform as long as the reward or prospects of receiving a reward continue.

In regard to learning, extrinsic motivation can either enhance intrinsic motivation or decrease the effects for a student who is already intrinsically motivated. Deci's cognitive evaluation theory (Raffini, 1993) gives direction in understanding situations that would benefit from extrinsic motivation and those that would be harmed by the introduction of a reward for the performance of a task. These are delineated in three propositions to the theory. The first proposition states that individuals need to be autonomous and self-determining. This proposition relates to the effect of a reward offered after a person is already performing an activity for intrinsic reasons. If the activity is performed for a reward, that reward then becomes the reason for performing. The purpose of the activity shifts and intrinsic motivation is undermined.
The second proposition of cognitive evaluation theory suggests that if an activity gives an opportunity for an individual to feel competent and to master a challenge and the person is self-determined to meet those competencies and challenges, the result is intrinsic motivation. If the task is too easy, it will lead to boredom. If the task is too difficult, it will leave the individual with a sense of incompetence.

The third proposition directly addresses the effect of rewards in relation to the context in which the rewards are given. Rewards may be given in an attempt for feedback regarding the performance, or they may be given in an attempt to control the individual performing the task. If used to convey information about mastery of the activity performed, then the individual's sense of competence can be enhanced and in turn this will increase intrinsic motivation. On the other hand, if a reward is used to control or manipulate, that reward becomes the sole reason for performing. Autonomy and self-determination are undermined and intrinsic motivation is decreased.

The effect of rewards on motivation is illustrated through the research of Calder and Staw (Wlodkowski, 1986). In their research, male college students were given two sets of jig-saw puzzles to solve; one puzzle with a picture, the other puzzle blank. One half of the subjects were promised one dollar for twenty minutes of labor. When the subjects were solving the puzzle with the picture (presumably the more interesting of the tasks) the introduction of money caused a reduction in task satisfaction. On the other hand, when the task was more neutral, (the solving of the blank puzzle), the introduction of money increased task satisfaction (Wlodkowski, 1986).
A similar study by Deci that asked college students to solve block construction puzzles resulted in similar results. One group participating in the experiment was offered money for its participation, the other group was offered nothing. During an eight minute break, the group that was offered money stopped its activity. Those who were not offered the reward continued working to solve the puzzle.

Through these examples it "appears that in situations where the behavior is interesting and stimulating, adding an external reward becomes overly sufficient justification and decreases intrinsic motivation; where the behavior is not relatively interesting or stimulating, adding an external reward probably increases task satisfaction" (Wlodkowski, 1986, p.14). It is the nature of the task and how rewards are used that determines their effect on motivation.

**Attribution Theory**

Unlike intrinsic and extrinsic motivation, attribution theory focuses on the role success and failure play in the motivation of an individual. According to Weiner and associates, attribution theory "may be of major importance in understanding performance on learning tasks and achievement-related behavior" (Wlodkowski, 1986, p. 8). Research by Weiner points to four causal elements to which most people attribute their successes and failures: ability, effort, difficulty of task, and luck. These four elements, as seen in Figure 1, are then categorized into two dimensions around the variable of locus of control. The first dimension, the locus, is either internal (originating within the person) or external (originating outside, leaving the person with no control). The second dimension relates to the stability of causal elements over time.
**Figure 1**

<table>
<thead>
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<th>Locus of Control</th>
<th>Internal</th>
<th>External</th>
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<tr>
<td>Over</td>
<td>Stable</td>
<td>Ability</td>
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<tr>
<td>Time</td>
<td>Unstable</td>
<td>Effort</td>
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<tr>
<td></td>
<td></td>
<td>Task Difficulty</td>
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<td></td>
<td></td>
<td>Luck</td>
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This 2x2 matrix represents the original attribution model first introduced by Weiner et. al. (Blur, 1987; Perry, 1993).

Students who attribute their success to their own ability or effort develop a sense of pride because they attribute that success to an internal cause. Those who attribute success to the level of task difficulty or luck attribute that success to an external cause, in other words, someone or something other than themselves. This leads to a decreased sense of pride. Failures which are attributed to ability or effort will often lead to a sense of shame. Naturally it follows that those who attribute failure to task difficulty or luck sense a decreased shame due to their personal lack of control over outcome (Wlodkowski, 1986).

The second dimension focuses on stability, or lack thereof, that affects expectations for future performance. Because ability and task difficulty are stable causes, a student who attributes success or failure to one of these causal elements will expect similar performance in the future. Those who attribute outcome to effort or luck expect that there is a possibility for change in future performance (Wlodkowski, 1986).
Self-worth Theory

Another theory which gives direction in understanding human motivation is self-worth theory. "Perceptual psychologists like Arthur Combs believe that self-enhancement is the motive driving all human behavior" (Raffini, 1988, p.5). In other words, perceptions that people hold of themselves are of utmost importance. Therefore, they are motivated to enhance, or when needed, they protect these perceptions when threatened (Raffini, 1988).

This need to develop and maintain a positive self-image is referred to by Covington as the self-worth motive (Raffini, 1988). "His theory focuses attention on an individual's need to seek success experiences and to avoid the sense of worthlessness and social disapproval generated by failure experiences" (Raffini, 1988, p.5). Those students who fear mediocrity avoid being labeled as not capable of performing at an above average level and thus choose to fail through apathy or by setting impossibly high goals. Although these strategies may be seen as self-defeating, students may find them necessary to protect fragile feelings of self-worth (Raffini, 1988). These feelings are related to Dweck's 1986 study regarding students' views of intelligence.

Dweck's study outlines two theories of intelligence with the first being the entity theory of intelligence. Those who subscribe to this theory believe that intelligence is a fixed entity. They try to gain positive judgments of their intellectual competencies and avoid negative judgments. If a student has a high confidence in his/her ability to achieve, he/she will seek the challenge. Low confidence will leave the student feeling helpless. He/she will thus avoid the challenge rather than face the possibility of being judged as
incompetent. Students with a low sense of self-worth develop maladaptive motivational patterns. They tend to look for "the easy way out." Rather than attempting to master course material, their goal becomes that of attempting to gain favorable judgment by performing well (Raffini, 1993).

The second theory is labeled incremental theory. Students who subscribe to this theory believe that intelligence is malleable. High persistence will eventually lead to the mastery of material according to this theory. Such students tend to seek out challenges and set goals to increase their own level of competence. They develop adaptive motivational patterns that allow them to conquer intellectual challenges and find understanding and meaning in course material (Raffini, 1993).

According to Wlodkowski (1985), most college students are more likely to subscribe to the entity theory of intelligence. "...The goal of many college students, perhaps a majority, is not to get an education or to enlarge and illuminate their lives, but simply to complete courses, often in piecemeal fashion without any sense of depth or higher purpose" (p.2). As Wlodkowski describes this phenomenon, college students have become "finishers, not learners." The challenge for educationalists is to help students find the value in and the techniques required to become learners.

Robert Owens' simple definition of motivation gives a basis for understanding the common denominator to the various motivational theories. "Motivation is generally considered to be rooted in human needs: the individual responds to needs by doing something about them" (see Figure 2), (Owens, 1987, p. 92).
A student with motivational problems may have a need, yet is unable to be motivated to perform in order to fulfill that need. A typical example is the student who has a need to earn a college degree to move into a desired career. Yet, the student is unable to find the motivation to study and learn the material for courses needed for a degree. The student is not capable of meeting his/her perceived needs.

**Characteristics of Motivational Problems in Students**

Marcus, Friedland and Mandel (1988) have identified five basic categories which describe types of underachievers, one being the unmotivated student. Those categories are (1) the over-anxious underachiever, (2) the conduct problem underachiever, (3) the academic problem underachiever, (4) the oppositional defiant underachiever and (5) the identity problem underachiever. The third category, the academic problem underachiever, is described as the student who has difficulty with level of motivation for academics.

The student who underachieves academically because of lack of motivation is described as appearing to be easy going and essentially coasting through life. This type of student, which accounts for 50% of underachievers, is highly motivated - but not toward academic achievement. This student is motivated "to avoid increased responsibility, expectations, independence and the burden of making one's own choices in
life" (Marcus, Friedland, & Mandel, 1988, p. 5). This student has endless excuses for deficiencies. He or she tends to procrastinate, forget, shows a lack of interest and generally has poor work habits.

When working with students who exhibit these behaviors it is important to rule out the possibility of the student having a learning disability, an emotional disturbance, a medical problem or other problem that would cause the student to display similar qualities (Marcus, Friedland, & Mandel, 1988). To help evaluate a student's areas of difficulty it may be helpful to use tools designed to help identify a student's level of motivation.

Tools Available to Identify Motivational Problems

The element of motivation was considered to be critical in a study at Creighton University which focused on college students who were at risk of academic failure. In this study (Kelley & Pappas, 1992), two specific tools were used to measure the motivation and attitudes of at-risk students toward being in college.

The first tool used was the ICD (Inventory for Counseling and Development). The ICD has an ambition scale which measures the degree to which competition, productivity and success are important while "the practicality scale measures the degree to which academic performance is expected to be followed by extrinsic rewards like high grades and recognition" (Kelly & Pappas, 1992, p.4).

Other scales included on the ICD are the persistence, orderliness, academic excellence, academic capacity, and academic motivation scales. The latter three scales
are designed to measure a student's tendency to over achieve, to study hard and the level of desire to achieve academically (Kelly & Pappas, 1992).

A second instrument used to evaluate students in the Creighton University study was the LASSI (Learning and Study Strategies Inventory) (Weinstein, 1987). The LASSI is designed to be a diagnostic and prescriptive tool used to measure learning and study strategy methods. The LASSI has ten scales: Attitude, Motivation, Time Management, Anxiety, Concentration, Information Processing, Selecting Main Ideas, Study Aids, Self Testing and Test Strategies.

The Motivation scale uses questions to address a student's diligence, self-discipline, and willingness to work hard. This scale helps to determine a student's willingness to accept responsibility for his/her own studying and achievement outcomes (Weinstein, 1987).

The CSI (College Student Inventory) (Noel-Levitz Centers, Inc., 1993) is another tool used to help identify students in need of motivational assistance. The program developed for use with the CSI is intended to promote communication between students and advisors. This is accomplished "by identifying students' needs, attitudes, motivational patterns, resources, coping mechanisms and receptivity to intervention" (Noel-Levitz Centers, 1993, p.1). The CSI has five major scales, two of which focus on student motivation. The first is the Academic Motivation scale consisting of five sub-scales. Those sub-scales measure study habits, intellectual interest, academic confidence, desire to finish college and attitude toward educators. The second major scale is the
Social Motivation scale which is designed to measure self-reliance, sociability and leadership.

Tools such as the Inventory for Counseling and Development, the Learning and Study Strategies Inventory and the College Student Inventory can serve as a basic foundation in helping to identify students who are challenged by the desire to obtain a college degree, yet suffer from a motivational disability for academic learning. Once such students are identified, the next step is helping them to improve their motivation to learn.

Techniques Used to Improve Student Motivation to Learn

Studies focused primarily on at-risk students suggest that interventions based on Weiner's attribution theory are potentially viable and important for developing college student academic success. High quality instruction does not guarantee student success according to Perry (1993). "Students who believe they have little control over their academic achievement perform no better following a lecture from an effective, compared to an ineffective instructor" (Perry, 1993, p. 687). One option to help students who have low motivation resulting in poor academic performance is that of attributional retraining. The purpose of attributional retraining is to change how students think about their successes and failures in turn enhancing motivation and achievement striving. For students who attribute success to external, unstable attributions (such as luck), those attributions need to be "replaced with internal, more stable attributions, such as high ability, thereby encouraging expectations of continued success" (Perry, 1993, p. 691). For those students who attribute failure to stable attributions such as lack of ability it is
important to help students attribute failure to unstable reasons such as lack of effort.

"Therefore an important component of attribution retraining is providing students with feedback that supports effort-oriented causes for success" (Raffini, 1988, p.24). This helps to promote the expectations that negative circumstances can be altered.

A review of twelve attributional studies as summarized in Perry, et.al. (1993) lists several features in common. First of all, the majority of students selected because of their tendency toward maladaptive attributions were those in their first year of college. Secondly, the techniques and methods used for attributional retraining involved a presentation directly informing students of appropriate attributions or through modeling that attribution in a structured interview. A frequently used technique was the viewing of a taped interview with senior students discussing their poor grades, their first year at college and how those grades improved. The students interviewed discussed their initial attributions of external factors such as luck or bad professors as the reason for their poor grades. The seniors then point out that they now attribute grades to internal factors such as effort, study habits and help-seeking behaviors.

A third common characteristic of the twelve studies is that "the induction usually occurs during a single episode, rarely through multiple exposures, after which students are tested on related tasks to determine the program's effectiveness" (Perry, 1993, p. 693). The majority of the studies support Weiner's theory of changing a student's attributions to unstable and potentially changeable which in turn increases the student's expectations for future success, heightens his/her motivation and enhances his/her achievement striving.
Another technique used to help students with motivational difficulties to achieve includes addressing situations with self-worth theory. According to research first conducted by Ferdinand Hoppe, a student of psychologist Kurt Lewin at the University of Berlin, and later replicated by James Raffini, the establishment of goal-setting behavior helps students to achieve while protecting their sense of self-worth. Goal-setting is beneficial in that the student strives to meet his/her own individual self-expectations or, as defined by Hoppe, the level of aspiration. "When individuals are free to establish their own goals, then their level of aspiration seems to operate as a type of governing mechanism that provides protection against the possibility of repeated failure on the one hand, and against easy achievements that do not give a feeling of success on the other" (Raffini, 1988, p. 15). Goal-setting tends to help individuals to improve performance by directing attention, mobilizing effort, and increasing persistence. The goal properties of specificity, difficulty level and proximity are also relevant when considering the effects of goal-setting on motivation (Ames & Ames, 1989).

Educators can help students with goal setting by:

1. Helping them "concentrate on a single goal for a short period of time so that they can measure their progress and maintain interest" (Raffini, 1988, p 16).

2. "Encouraging students to state their goals clearly so that each knows exactly what must be done" (Raffini, 1988, p. 16).

3. Showing students how to select objectives to work toward and attain by a certain time.
4. Teaching students that "while reaching short-term goals is important, learning self-directedness and prosocial behavior is a long-term process" (Raffini, 1988, p.16).

Educators should give students choices whenever possible to encourage students to practice goal-setting strategies. Choices allow students to make a commitment which can lead to responsible, goal directed behavior (Raffini, 1988, 1993).

Learning Disabilities

Definition of Learning Disabilities

Learning disability is a term which was first introduced in the early 1960s by William Cruickshank in 1961 and Samuel Kirk in 1962. In 1968 the National Advisory Committee on Handicapped Children of the U.S. Office of Education developed a definition for the term as follows: "Children with special learning disabilities are persons with average or above average intelligence, but who exhibit a disorder in one or more of the basic psychological processes involved in understanding or in using spoken or written languages. These may be manifested in disorders of listening, thinking, talking, reading, writing, spelling or arithmetic. They include conditions which have been referred to as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, developmental aphasia, etc." (Stewart, 1989, p. 2.10; Vogel & Adelman, 1993, p.3). Those learning problems resulting from visual, hearing or motor handicaps, mental retardation, mental disturbances or environmental disadvantage are not considered to be learning disabilities (Stewart, 1989, p. 2.10).
The above definition, which was developed in 1968, was specifically intended to meet the needs of children. In the 1970s when children with learning disabilities were first being identified, the definition served its purpose. Since that time, the children of the 1970s who were diagnosed with learning disabilities have become adults of the 1990s with learning disabilities. In 1981 the National Joint Committee on Learning Disabilities (NJCLD) revised the definition to reflect learning disabilities as a lifelong condition which affects people inside as well as out of the classroom (Vogel & Adelman, 1993).

"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...or with extrinsic influences...they are not the result of those conditions or influences (NJCLD, 1981)" (Vogel & Adelman, 1993, p. 4).

The Learning Disabilities Association of Illinois has simplified the definition of a learning disability to "a permanent disorder which affects the manner in which individuals with normal or above average intelligence take in, retain and express information" (Barry, Brinkerhoff, Keeney & Smith, 1993, p. 1).

Persons with learning disabilities are capable of being educated, but the act of learning is more difficult because their method of learning differs from persons who do
not have learning disabilities (Stewart, 1989, p. 2.10). "The popular misconceptions about learning disabled persons include the ideas that they are retarded, have emotional problems, or will outgrow it as they mature, or that they are lazy, unmotivated, or underachievers" (Schmidt & Sprandel, 1982, p. 10). Those with learning disabilities possess a deficiency in one or more of the "basic processing mechanisms involved in learning" (McGuirre, Hall, & Litt, March 1991, p. 102). Cognitive processes such as encoding, organizing, storing, retrieving, comparing, and generating information are a natural part of the learning process (McGuirre, Hall, & Litt, March 1991, p. 102). (See Appendix A for a complete list of types of learning disabilities.)

Characteristics of Students with Learning Disabilities

It is often believed that students with learning disabilities have difficulties only in reading, writing and spelling (see Appendix A for types of learning disabilities). Yet, language and mathematics are also major areas of concern for postsecondary students (Vogel & Adelman, 1993). Mangrum and Strichart (1984) identified 134 characteristics of postsecondary students with learning disabilities. "Their broad categories included difficulties in cognition, spoken and written language, perceptual-motor skills, academics, work and study habits, and social and affective behaviors" (Vogel & Adelman, 1993, p. 116). Another study by Johnson and Blalock (1987) indicated that adult students may have problems in listening comprehension, vocabulary, pronunciation of multi-syllabic words, syntax, oral formulation and language usage. They also found that some college students with learning disabilities have difficulty in practical mathematics "such as the
use of money, time, and measurement" (Vogel & Adelman, 1993, p. 116). Some students may be strong in some areas while very weak in others.

The Learning Disabilities Association of Illinois has identified six specific areas of characteristics of college students with learning disabilities. Such students may exhibit difficulty in reading skills, written language skills, oral language skills, mathematical skills and social skills (Barry, Brinckerhoff, Keeney, & Smith, 1993). The hurdles that students with learning disabilities face are numerous and vary in both type and severity from person to person. Yet, there are some common characteristics that these students may display. When working with students in the classroom or in a one-on-one situation, the recognition of many types of learning disability characteristics is important.

Students with learning disabilities may often exhibit difficulty in learning and performance tasks such as memorization, maintaining attention, reading rate and all aspects of written language as well as the use of numerical concepts. Such students may also display a tendency for inadequate planning and lack of organizational skills, insufficient goal setting and poor time management. Students who have never been diagnosed as having a learning disability may have limited knowledge and/or use of such strategies. Students who are aware of the strategies may lack in planning and self-monitoring of learning processes (McGuire, Hall, & Litt, March, 1991).

Students with learning disabilities may display characteristics such as illegible handwriting, the appearance of being clumsy or poorly coordinated, being personally disorganized such that the student has an inability to use schedules, repeatedly forgets things and loses or leaves possessions. Students with learning disabilities may also seem
disorganized in time or space. They may confuse up and down or right and left. Such students may have difficulty understanding or following directions. Confusion with similar letters and words such as "b" and "d" or "was" and "saw" can occur. These students may be easily distracted. They may display anxiety or anger because of an inability to cope with school or social situations; and finally, these students will often demonstrate an inability to understand the subtleties in a social situation and may lack in self-perception regarding their behavior in relation to others (Stewart, 1989).

Those students having difficulty with reading skills may have a slow reading rate or difficulty in modifying reading rates in accordance with material difficulty. There may be difficulty in comprehension and retention as well as ability to identify important points and themes. Such students may also struggle due to "poor mastery of phonics, confusion of similar words, and difficulty integrating new vocabulary" (Barry, Brinkerhoff, Keeney & Smith, 1993). Students who have fared well in high school may collapse under the demands of a college reading load. Similar difficulties can be exhibited in written language skills.

Sentence structure and spelling can be impossible to master for the student with written language learning disabilities. Such students may not have the ability to copy information correctly from a book or blackboard and may have poor penmanship. Writing may also be a slow process for these students, making lengthy papers and essay exams very difficult to complete on time. There are also those students who have a learning disability in the area of oral language skills.
Students with oral language skill disabilities are characterized by an "inability to concentrate on and comprehend oral language" (Barry, Brinkerhoff, Keeney & Smith, 1993, p.3). A student with difficulty in oral language skills may understand an idea, but may not be capable of expressing ideas orally. Other characteristics include lacking grammar skills in spoken English and difficulty in telling stories in proper sequence. Classroom participation can be halted because of these oral difficulties. Other students may have problems with mathematical skills.

Those students who exhibit incomplete mastery of the basic mathematical facts may have a learning disability. They may have a tendency to reverse numbers or confuse operational symbols. The ability to copy problems from one line to another may be lacking or the student may have "difficulty remembering the sequence of operational processes" (Barry, Brinkerhoff, Keeney & Smith, 1993, p.3). Students with learning disabilities may find abstract concepts difficult to understand and retain and may lack in comprehension of word problems. Mathematics can also be difficult for these students due to reasoning deficits. Other students may find college to be challenging because the learning disability affects their organizational and study skills.

Time management can prove to be a challenge for many students with learning disabilities. They may find starting and completing tasks to be a slow process. The demand of meeting long term goals over a semester can be overwhelming for such students. Recalling information that has been taught is repeatedly a day-to-day challenge. These students often lack good organization in written notes and compositions. Other
study skill and organizational problems may include a short attention span during lectures and poor ineffective use of library materials.

Lastly, many adults with learning disabilities "may have social skills problems due to their inconsistent perceptual abilities. For the same reason that a person with visual perceptual problems may have trouble discriminating between the letters "b" and "d", he/she may be unable to detect the difference between a joking wink and a disgusted glance" (Barry, Brinckerhoff, Keeney & Smith, 1993, p.3). Those with auditory perceptual problems may have a similar problem in that they are unable to distinguish between subtle changes in tone of voice. A sincere and sarcastic comment may not be distinguishable. Such problems can lead to lowered self-esteem which makes working with others and making new friends a difficult task.

Each student's set of learning difficulties is different making each case individual. Many assumptions that are made about students with learning disabilities can be proven wrong with each new student who brings strengths and weaknesses with him/her to the postsecondary setting.

For students who have been diagnosed as having a learning disability previous to entering college, there is often an assumption that these students are ready for the transition to college. The fallacy that students are educated about and understand their learning disability and therefore have overcome the disability can be harmful to a student's chances of success. Once the student begins college there may be a need for re-evaluation or for a new referral (Stewart, 1989).
Those students who have not been diagnosed before college may have succeeded because of lack of challenge or because they have had closed head injuries or illnesses which cause learning disabilities (Vogel & Adelman, 1993). Such students may go through life with undetected learning disabilities unless they are brought to the surface. Diagnosis and support services are quite relevant for these students at the postsecondary level.

Identification Tools

Students who have never been diagnosed as having a learning disability may first be identified by a professor or other professional, a parent or by the individual's own realization. Once the question arises, screening tools can be used to determine whether or not the student should be referred for professional diagnosis. Examples of such screening tools include the Academic Styles Inventory (ASI) which asks questions regarding the student's attitude toward education and self-perceptions of ability and effort (Stewart, 1989). A one-on-one interview is often used to evaluate the student's academic history, an analysis of skills, the student's attitude toward learning, the family history and a medical history. A third screening tool is a behavioral checklist that is completed by an instructor and/or counselor/advisor to develop an understanding of how the student behaves in a variety of settings (see Appendix B).

If it is determined that a college student should be referred after an initial screening, the student would undergo a series of tests designed for assessment of the student. "In order to be eligible for accommodation, the disability must be confirmed to protect the integrity of the program and to avoid any suspicion of misuse" (Schmidt &
Sprandel, 1982, p. 52). The process consists of a set of tests which are administered under consistent testing situations which are norm or criterion referenced. "The tests are designed to identify specific problems that may interfere with the student's ability to learn" (Stewart, 1989, p. 12). Students should also be interviewed as part of the formal assessment process in that "the individual's recounting of his or her learning experience and in depth medical history remain among the most valuable information in clinical assessment" (Schmidt & Sprandel, 1982, p. 31). A complete process of testing ensures the most accurate diagnosis of a student in turn allowing for the best system of support and accommodation for the student.

An example of a basic diagnostic battery of tests used by psychologists consists of the Wechsler Adult Intelligence Scale Revised (WAIS-R); the Woodcock-Johnson Psychoeducational Battery (W-JPB), Part Two; the Modern Language Aptitude Test (MLAT); and a writing sample (Stewart, 1989).

The WAIS-R is designed to assess the intellectual functioning of the student. This is best accomplished when administered and scored by a trained psychologist. The test "yields a full-scale IQ" (Stewart, 1989, p. 12) which provides information regarding the student's native ability thus giving an indication of the student's potential for academic success (Schmidt & Sprandel, 1982). Students with learning disabilities will typically score noticeably high in some areas while scoring noticeably low in others. Also, there is "usually a significant gap between the Verbal score and the Performance score" (Stewart, 1989, p. 12). Before a determination is made, two professionals should consult and review the test.
The W-JPB, Part Two is a test used to determine academic achievement in written language, reading and math as well as general knowledge. The information from this test is compared with the level of functioning anticipated for the student's age and educational history. Part One of the W-JPB is used in addition to Part Two to assess the cognitive abilities of the student.

The MLAT assesses abstract reasoning abilities and is designed to predict a student's ability to succeed in learning a foreign language. It can also be used to determine the effectiveness of certain accommodations for the student "such as extended testing time and alternative testing methods" (Stewart, 1989, p. 13).

Finally, a writing sample is used to determine the student's skills in comparison to his/her peer group's skills. When using a writing sample, all students should be tested at one time under the same conditions, meaning the same test as well as the same amount of time to complete the test. Also, each test should be evaluated by one person other than the test administrator. This information is then used to determine the student's need for learning disabilities support. "In order to be eligible for special services, there should be evidence of a discrepancy between potential and achievement, some processing deficits, and a history of chronic learning problems" (Vogel & Adelman, 1993, p. 118). This can be determined through the assessment procedure.

Once all data are gathered, assessment is done by a team and a written report is generated. The report should include data used in the assessment, recommendations for institutional support as well as recommendations for the student. The recommendations are intended to enhance the student's learning process. General recommendations such as
"the student learns best auditorily" may be included, yet specific recommendations for accommodations are best. An example of a specific recommendation would be "student should use Books on Tape to complement the reading of textbooks" (Stewart, 1989, p. 13).

**Intervention**

The complexity of learning disabilities calls for a plan of intervention to meet the needs of each student seeking accommodation and support. An individualized plan is best developed on a per case basis. A professional should meet with the student to identify support options that are appropriate and needed. These options should include education for the student regarding his/her learning disability. "Learning disabled students can be made more self-aware not only in terms of their reading and learning processes but also about the nature of their disability" (Brozo & Curtis, 1986, p. 10). Knowledge about the student's own disability can help him/her to take responsibility for his/her own learning while exploring strength areas and addressing deficit areas. One approach is to work with a student using an individual education program.

Most postsecondary learning disability programs use an individual education program (IEP) for each student participating in the program. Although it is required by Public Law 94-142 that an IEP be prepared for students with learning disabilities through high school, it is not mandated for college level programs. Yet, the "IEP is an excellent device for planning and monitoring services delivered to college learning disabled students" (Mangrum & Strichart, 1984, p. 85). An IEP should hone in on a student's academic and learning strengths and deficits. Advice for effective learning strategies to
be used by the student should be included as well as effective teaching strategies that should be used with the student. Those deficits that are identified should be used in a section of the IEP to specify means of remediation.

Other forms of help such as tutoring for specific courses and counseling should be included on the IEP. Specifics such as the listing of each course for which a tutor is needed as well as frequency of tutoring or counseling should be included. Lastly, any special courses and auxiliary aids and services should be included.

Both student and person developing the IEP should sign and date the IEP and a copy should be retained by each. The IEP should then be reviewed and revised each semester (Magnum & Strichart, 1984).

A specific program at Barat College (Illinois) offers a support service which includes a four-pronged approach for an intervention plan:

1. To use course support as needed (subject-matter tutoring).
2. To improve basic skills deficits through remediation.
3. To access and use appropriate accommodations (e.g. modified examination procedures).
4. To develop and use compensatory strategies based on self-knowledge, that is understanding the results of diagnostic testing and how these relate to their strengths and deficits and learning styles" (Scruggs & Wong, 1990, p. 329).

Intervention begins with identification of needs and is then implemented by both the student advocate and the student. Once a plan is in place the student should work
with his/her professors to make any specific arrangements. "For the student with a learning disability, assessment that is comprehensively conducted, meaningfully analyzed, and swiftly utilized may be the key to success in the traditional postsecondary setting" (Stewart, 1989, p. 13). It is important that the student advocate use a supportive approach while encouraging the student with a learning disability to become an active and persistent learner in order to succeed in college (Brozo & Curtis, 1986).

**Legal Implications**

Section 504 of the Rehabilitation Act of 1973 states that: "No otherwise qualified handicapped individual in the United States shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance" (Vogel, 1990, p. 8). All institutions of higher education are required to implement Section 504 if they receive any federal financial assistance. "Consequently, discriminatory actions by universities are prohibited in (a) recruitment, (b) testing, (c) admissions, (d) academic adjustments, (e) auxiliary aids, and (f) cost" (Putnam, 1984, p. 71). The ability to implement this law is directly related to the level of knowledge and understanding regarding students with learning disabilities and their needs.

An awareness of the implications of Section 504 may be most helpful to faculty, administration and staff when working with students with learning disabilities. Five basic points regarding Section 504 are important. The first is that "no student can be excluded from any course, major, or program solely on the basis of a handicap" (Vogel, 1990, p. 8). Secondly, accommodations "are mandated especially in regard to the
provision of alternative testing and evaluation methods for measuring student mastery, except when such an alteration would result in a modification to course objectives" (Vogel, 1990, p. 9). Accommodations could include untimed test taking and taped text books.

Thirdly, "Modifications, substitutions, or waivers of a course, major, or degree requirements are discussed in the regulations implementing Section 504 and may be necessary to meet the needs of some students with learning disabilities" (Vogel, 1990, p. 9). Fourthly, "Changes in time limits to complete a degree may have to be made" (Vogel, 1990, p. 9). Lastly, "It is discriminatory to restrict the range of career options in counseling learning disabled students as compared to non-disabled students with similar interests and abilities unless such counsel is based on strict licensing or certification requirements in a profession that may comprise an obstacle" (Vogel, 1990, p. 9).

To best meet the student's needs, a counselor or an advisor should inform students of these requirements to help them make informed decisions regarding their learning disabilities and their educational options. Faculty and staff can better fulfill the requirements of Section 504 if they are educated. Awareness can be increased by using institutional publications to disseminate basic information such as services offered, locations, hours, etc. Presentations and workshops touching on the requirements of Section 504 as well as methods to meet those requirements can be a first step in helping the population of students with learning disabilities. The U.S. Department of Education's Civil Rights Office offers the video tape "Equality in Education: Section 504 in Postsecondary Programs." Lastly, beginning to educate faculty and staff about learning
disabilities will help to build awareness and eliminate misconceptions which may prevent
students from receiving the most help possible (Vogel, 1993). This can be accomplished
through in-service programs and workshops.

Preparing Faculty to Identify Students in Need

When working with faculty, the learning assistance professional should emphasize
that the purpose of identifying students in need is to help struggling students receive
assistance that could lead to academic success. Behaviors displayed in the classroom may
be key in helping to identify such students. Faculty involvement in identification of
these students can be crucial in reaching students in need.

Behaviors which are associated with motivational problems include having a low
opinion of one's ability; giving up on tasks or classes easily; procrastination; low
participation; denial of having tried even though one has; and finding decision making to
be difficult. Students may also tend to set unrealistically high or low goals and when they
fail they may become self-punitive. Motivationally troubled students may seem anxious
or nervous about schoolwork and may engage themselves in many off-task behaviors
such as daydreaming (Ames & Ames, 1991). Such behaviors may be similar to those of
students with learning disabilities.

In identifying students with learning disabilities, faculty can use a checklist
similar to the example in Appendix B. The identification of patterns that may be related
to a learning disability could be pertinent in determining the level of success of the
student. "Since many students do not discover that they have a learning disability until
they begin to confront the greater academic expectations of college, faculty members
need to know what to look for in regard to specific behavior which might indicate learning disabilities" (Schmidt & Sprandel, 1982, p. 65).

**Classroom Techniques**

To avoid the development of low motivation in a student, faculty should be aware of techniques that may lead to motivational problems. According to Ames and Ames, practices such as competition and social comparison as well as public evaluation can cause a student to protect his/her self-worth through avoidance. Faculty practices such as reinforcing ability and performance rather than effort and learning can also contribute to motivational problems. This is also related to an excessive emphasis on success and grades. Faculty should not permit students to be uninvolved in their learning and should help all students gain recognition for their work. Lastly, faculty should work to create learning conditions that are conducive to learning and are not distracting (Ames & Ames, 1991).

Such practices are only the beginning steps to help college students become motivated toward learning for the sake of learning. As Wlodkowski (1985) states, "recent reports argue that the cultural press to 'get a job' is the major force propelling students toward pragmatic 'finishing' attitudes toward studies" (p. 3).

One way for faculty to combat the "finishing" attitude is to help students see the connection between the objectives of their courses and how the students can use and apply what faculty have to offer to their own futures. This may seem to place the burden of motivating students on the faculty, but it is important to remember that motivation is not solely the responsibility of the student; "motivation is an interactive process"
If faculty value increases in learning, breadth of vision, and continuing motivation in college students, then it must be modeled in their teaching. If faculty are not dedicated to the progression of college students in the classroom, but would prefer getting classes over in order to move on to their own more rewarded activities of research and publication, they themselves are finishers. As Wlodkowski (1985) states, "finishers produce finishers" (p. 5). The answer then may be for faculty to create more interactive means of educating students.

One method of developing interactive learning processes is that of synergogy. Synergogy is defined as "...a systematic approach to learning in which the members of small teams learn from one another through structured interactions; thus the idea of synergy in learning" (Mouton & Blake, 1984, p. xii). The structure of synergogy designs are geared toward increasing motivational learning environments. The overall effect is that an individual's desire to learn by helping one another is reinforced. The four fundamental principles of synergogy are: "(1) replacing authority figures with learning designs and instruments managed by a learning administrator; (2) enabling learners to become proactive participants who exercise responsibility for their own learning ; (3) applying to education the concept of synergy, in which the learning gain that results from team work exceeds the gain made by individuals alone; and (4) using learners' colleague affiliation to provide motivation for learning" (Mouton & Blake, 1984, p. 9). This form of education can be applied to the acquisition of knowledge, enhancement of attitudes and the development of skills.
This procedure may be helpful in increasing students' motivation as well as meeting the needs of students' varying learning styles which may be determined by learning disabilities. Students who learn best kinesthetically may find the synergogy approach to be most helpful. Other techniques which may be adapted to any classroom would include the use of various forms of media.

By making accommodations relating to teaching methods used to relay information, faculty can meet the needs of both students with learning disabilities and enhance learning for all students. This technique coupled with adjustments in evaluation methods measuring student mastery will not only help students in their level of learning, but will also meet the requirements of Section 504.

Some students may benefit from seeing information in written form while others learn best aurally. When lecturing, faculty can use pre-developed posters to help illustrate main points. At the beginning of each class, goals and objectives should be written out and announced to help students make connections between each class period. Another method of helping students is to announce assignments as well as providing them in written form.

For students who have been diagnosed as having a learning disability, a specific program, such as an individual education program (IEP), should be developed for that student by a learning assistance professional. Faculty should be aware of the needs of individual students with learning disabilities in order to best accommodate those students' needs. Encouraging students to work with faculty can be the most effective mode of meeting student needs by developing a shared understanding of most helpful
accommodations. Common accommodations are extended testing time or un-timed tests, tape recorders used in the classrooms or note takers who actually take notes for the students in need. It may also be helpful for some students to obtain a copy of the course syllabus four to six weeks before the beginning of the course (Vogel, 1990; 1993).

Faculty can further assist students by adjusting their classroom style to give students a sense of organization. Expectations for the course should be expressed both verbally and on the syllabus. Lectures should begin with an outline of the material to be covered during that specific class period and should end with a brief summary of key points. Any reading assignments should be announced well in advance to accommodate both slow readers and those students who may be using books on tape. In general, it takes about six weeks to get a book tape recorded (Barry, Brinckerhoff, Keeney & Smith, 1993).

Helping students prepare for and meet the requirements of an exam may relieve students' frustrations and anxieties while they prove mastery of the material. Students can benefit from study questions that demonstrate both the format and the content of exams. Further help is gained through an explanation of what demonstrates a good answer and why. During exams allow students to use simple calculators, scratch paper and spellers' dictionaries to aid in the testing process. Another method of helping students with learning disabilities achieve is by allowing them to use alternative modes of testing to demonstrate mastery of course material (Stewart, 1989; Vogel, 1990; 1993). This can include but is not limited to giving tests orally or allowing students to do projects which best meet their learning strengths (Schmidt & Sprandel, 1982).
Lastly, it is important for faculty to be aware of specific support services offered on campus. Encouragement to seek assistance such as study skills improvement, tutorial services, peer support groups, and testing services can help students to understand what is needed for their own college success.

**Summary**

Both motivational problems and learning disabilities are important issues for learning assistance professionals to consider when working with students who are not achieving. Knowledge of both of these issues can help the informed practitioner discriminate between the two areas of difficulty.

Motivational theories such as intrinsic and extrinsic motivation, attribution theory and self-worth theory give direction in understanding the basics of motivation and how it can affect student learning. A theoretical base can further be enhanced through knowledge of those characteristics which accompany motivational problems. Once assessment and identification of a motivational problem have been made, intervention using the basics of motivational theories can occur. When assessing students with academic achievement difficulties it is important to distinguish between motivational problems and learning disabilities.

In the 1960s, learning disabilities were first defined. In the 1970s, children in the United States were being diagnosed as learning disabled. Currently, institutions of higher education are trying to best meet the needs of adult learners with learning disabilities. This can partially be achieved through the education of learning assistance professionals.
Knowledge of the definition of learning disabilities as well as the characteristics of students with learning disabilities are pertinent for a learning assistance professional. The information presented in this chapter can serve to help in the development of this knowledge. A basic understanding of learning disabilities can be the first step in identifying a student with learning disabilities. Initial screening by a learning assistance professional is needed to determine whether or not a student should be referred for extensive testing.

A student with a confirmed learning disability often seeks help from a learning assistance office. It is therefore important for the learning assistance professional to understand learning disabilities and intervention techniques. Also to be considered are the obligations and consequences under Sections 504 of the Rehabilitation Act of 1973. Such considerations should include the education of faculty to help them meet the needs of all students in the classroom.
CHAPTER III
METHODOLOGY

Overview

The objective of collecting original data for this study was to determine if learning assistance professionals in selected colleges and universities are prepared to "practice and promote academic performance...utilizing principles of developmental theory to facilitate learning that employs the principles of cognitive and affective development" (Maxwell, 1994, p.v). More specifically the study was designed to learn if motivational theory and the knowledge of learning disabilities are being used by learning assistance professionals in their work with college students. This chapter focuses on the method used to create, test and distribute the data collection survey. Also described are the procedures which were used to analyze the data.

Population and Sample

There is very little documentation in the literature describing the population of learning assistance professionals. According to Van (1994) a learning assistance staff should consist of a full-time coordinator with full administrative powers. This person should have a strong relationship with academic departments and a "knowledge of and commitment to the underprepared student" (p. 71). Van also suggests that full-time staff members should "possess a clear understanding of the underprepared learner, have
selected to teach this population, and hold high expectations of the student" (1994, p. 71). This depiction of the learning assistance professional may not be the reality for this field.

Maxwell (1994) states that "hundreds of instructors...enter the field of college developmental education each year with minimal formal training or experience in college skills work" (p. v). Maxwell suggests this probably relates to the evolution of learning assistance centers on many campuses. Enright and Kersteins state that "there is no consistency in the qualifications or credentials of the academic preparation, training, and disciplinary residence for the director of a learning center" (1994, p. 59). They continue by saying that those in learning assistance come from a variety of backgrounds and sometimes are in their positions by default. "Given the wide-ranging multidisciplinary mission of the learning center, which is without precedent, the assignment has been viewed as anything from a refuge for a marginal employee to a residence for an academic renaissance man" (Enright & Kersteins, 1994, p.59). The professional literature suggests that there is no typical learning assistance professional in terms of educational background and only hope exists for standards in terms of professional goals and ideals.

A survey was conducted for this study to learn about the learning assistance professional population and how it fits the professional literature's depiction. A sample of learning assistance professionals was chosen using the participant list from the Midwest College Learning Center Association's (MCLCA) 1993 Eighth Annual Conference and the 1991 MCLCA Resource Directory. There were a total of 119 participants representing 92 different institutions listed in the conference participant list. The MCLCA 1991 Resource Directory listed a total of 99 institutions. These two lists
were cross referenced and a total of 113 institutions was identified. Three institutions were eliminated - two were used in the pilot study and one was involved in the development of the survey. Of the 110 remaining institutions ten were randomly eliminated. The institutions chosen represent the public and private sectors as well as two-year and four-year institutions throughout the Midwest.

Development of the Survey Instrument

Based on perceived needs of college students from the review of the literature and through practicum work in a learning assistance center, the researcher developed a survey instrument (see Appendix C). The development of the survey was guided by the research objectives stated in Chapter I. Those objectives include the identification of motivational theories and strategies used to help students who may be having motivational difficulties and the tools and techniques used to identify and assist students with learning disabilities and motivational problems in learning assistance programs. Furthermore, the survey was designed to gain information regarding the integration of motivational assistance and learning disabilities assistance into a learning assistance center.

The instrument, designed by the researcher, was created to elicit information about learning assistance centers and their professionals. Specifically, the researcher sought information regarding the types of services offered in learning assistance centers and the students who seek these services. Secondly, and more importantly, the instrument was designed to gain information regarding learning assistance professionals' knowledge of students with learning disabilities and students with motivational problems. For example, selected questions asked include "Are your staff trained to work with
students with learning disabilities?" and "Are you familiar with motivational theories?"
Also included were questions regarding philosophies and attitudes held toward providing
specific services to students with either learning disabilities or motivational problems.
Questions such as "Do you feel motivation is a problem for students?" and "How do you
distinguish between students who are not motivated and those who have learning
disabilities?" were intended to reveal the learning assistance professional's feelings of
responsibility toward these two groups of students.

The survey included four major sections. The first section, "Institutional
Information," asked for institutional demographics such as institutional type and student
admissions requirements. The next section, "Learning Assistance Services," asked for
information regarding learning assistance staff backgrounds and basic functions and
services of the centers. The third section, "Student Information" (which was divided into
two sub-groups "Learning Disabilities and Students" and "Motivation and Students"),
was designed to gain information regarding students with learning disabilities and those
with motivational problems. Questions included in this section were "Does your program
have special services available for students with learning disabilities?" and "Do you feel
that motivation is a problem for students?" Also addressed in this section was the
professional's knowledge of learning disabilities, motivational problems and the
techniques used to work with these students. This section is comprised of questions such
as "Are learning assistance professionals trained to identify/recognize potential students
with learning disabilities?" and "What strategies are used within your program in helping
students who are having motivational difficulties?" The final section, "Identification and
Assessment," asked respondents to identify types of assessment tools (such as the Nelson-Denny Reading Test, The Wide Range Achievement Test or the Canfield Learning Styles Inventory) used in their learning assistance programs.

**Pilot Study**

Two learning assistance center directors in the Chicago area were asked to evaluate the pilot survey (see Appendix D) for clarity and coherence. A packet was sent to each evaluator including a letter which explained the purpose of the pilot study, a copy of the pilot survey and a questionnaire used to record feedback regarding the pilot survey. One of the two questionnaires and pilot survey responses was received. Follow-up with the second evaluator was attempted, but she was not available. Another evaluator was not identified due to limited time.

The one response received was used to eliminate survey questions in order to shorten the survey. When asked if any questions should be deleted from the survey the respondent replied; "I would delete the tendency to ask respondents to explain most answers...I am afraid many people will not answer the questions or respond to the survey." Revisions included the deletion of questions asking for explanations. After revisions the survey was sent to the Institutional Review Board at Loyola University Chicago.

**Procedures for Protection of Human Subjects**

Once the survey was completed, a description of the proposed research, including the survey, was submitted to the Loyola University Institutional Review Board (IRB). The IRB reviewed the proposal for the benefits and risks involved to those participating
in the study. The research proposal was deemed not to hold any undo risk for the research subjects.

Data Collection Procedures

One hundred institutions were identified to receive a survey packet including a cover letter, a pre-addressed, stamped, return envelope and a copy of the survey. Each institution was coded with a number which was recorded on individual surveys for the purpose of survey return follow-up. The surveys were sent to the contact person listed in the MCLCA directory. The contact people identified may not have been learning center directors. The survey (Appendix C) was sent on February 21, 1994 via first class mail with a cover letter (Appendix E) and a pre-addressed, stamped, return envelope. The letter requested that the survey be completed and returned by March 11, 1994. After the deadline of March 11, 40 of the 100 surveys were returned. A follow-up was not conducted due to lack of funding for the project. Thus, a 40% rate of return was achieved.

Data Analyses

The information supplied by the 40 respondents was used to determine the percentage of return by type and size of institutions. Other data collected were categorized in three areas:

1. **Learning assistance centers.** Data regarding the level of education and types of degrees earned by learning assistance professionals were grouped and percentages calculated. This same procedure was used in the analysis of types of programs studied as well as the numbers of staff members
working within the learning assistance centers. Other sub-categories for which data were calculated included classes and workshops offered as well as numbers of students served.

2. Learning disabilities and students. Four main categories identified on the survey were used to calculate information regarding students with learning disabilities and learning assistance services.

3. Motivation and students. Two questions from this section of the survey were quantitative. Percentages for these questions were calculated and reported. The remainder of questions in this section yielded qualitative data. These data were categorized and summarized.

The survey instrument yielded both qualitative and quantitative information allowing for two types of analyses. Institutions with learning assistance centers provided information regarding the dynamics of their centers and the services they provide. A greater understanding is gained of how learning assistance professionals work with students who have or may have learning disabilities or motivational problems.

The data gathered from this survey are presented in Chapter IV. The results are analyzed and interpreted within the context of the literature review in Chapter II.
CHAPTER IV
RESULTS AND DISCUSSION

Overview

An original survey instrument was developed by the researcher and sent to 100 midwest institutions of higher education. The survey focused on learning assistance centers and their role in working with both learning disabled and motivationally troubled students. The survey gathered data regarding demographic information related to the institution, the training and education of those working in a learning assistance center, learning assistance assessment tools used, special programs developed within learning assistance centers, strategies used to help identify students in need and strategies used to help students improve academic achievement.

This survey serves as an important tool for this study in that it collects information about learning assistance centers in relation to the two areas of study: learning disabilities and motivation. The survey asks professionals who are in the field how they view learning disabilities and motivational difficulties as viable problems for college students. The survey data also reveal the educational backgrounds of those in professional learning assistance positions. Information collected in this study contributes to the professional literature on learning assistance centers and allows for a perspective
regarding learning disabilities and motivational problems from those who are working with students on a daily basis.

**Institutional information**

Of 100 surveys mailed to learning assistance professionals at 100 institutions throughout the Midwest, 40 were completed and returned. Therefore, 40% of those institutions are represented by this study. Of those responding, 35% are from 2-year public institutions, 20% are from 4-year public institutions and the majority, 45% are from 4-year private institutions.

The majority (32.5%) of the institutions represented had an undergraduate headcount between 1501 and 5000. Eight percent of institutions reporting indicated an undergraduate head count between 501 and 1500 while 6% of the institutions reported an undergraduate headcount of 5001 to 10,000. Seventeen percent of the respondents did not answer the question. All other represented institutions were evenly distributed among the remaining six categories (see Table 1). The graduate student headcount is indicated in Table 2.

Each respondent indicated the highest degree offered at his/her institution. The responses were fairly evenly distributed among the three categories of associate, bachelors, and masters degrees. See Table 3 for more information regarding this institutional demographic.
Table 1 -- Undergraduate Head Count at Responding Institutions

<table>
<thead>
<tr>
<th>Undergraduate Head Count (Full and Part-time Students)</th>
<th>n</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 or less</td>
<td>2</td>
<td>5.0%</td>
</tr>
<tr>
<td>501-1500</td>
<td>8</td>
<td>20.0%</td>
</tr>
<tr>
<td>1501-5000</td>
<td>13</td>
<td>32.5%</td>
</tr>
<tr>
<td>5001-10,000</td>
<td>6</td>
<td>15.0%</td>
</tr>
<tr>
<td>10,001-15,000</td>
<td>1</td>
<td>2.5%</td>
</tr>
<tr>
<td>15,001-25,000</td>
<td>1</td>
<td>2.5%</td>
</tr>
<tr>
<td>*25,001 and over</td>
<td>2</td>
<td>5.0%</td>
</tr>
<tr>
<td>no response</td>
<td>7</td>
<td>17.5%</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

*Both respondents gave approximations for the total institution headcount.
Table 2 -- Graduate Student Head Count at Responding Institutions

<table>
<thead>
<tr>
<th>Graduate Student Head Count (Full and Part-time Students)</th>
<th>n</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 or less</td>
<td>5</td>
<td>12.5%</td>
</tr>
<tr>
<td>501-1500</td>
<td>3</td>
<td>7.5%</td>
</tr>
<tr>
<td>1501-5000</td>
<td>1</td>
<td>2.5%</td>
</tr>
<tr>
<td>5001-10,000</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>10,001-15,000</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>15,001-25,000</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>25,001 and over</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>no response</td>
<td>31</td>
<td>77.5%</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 3 -- Highest Degree Offered at Responding Institutions

<table>
<thead>
<tr>
<th>Highest Degree Offered</th>
<th>n</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>associate degree</td>
<td>12</td>
<td>30.0%</td>
</tr>
<tr>
<td>bachelor's degree</td>
<td>10</td>
<td>25.0%</td>
</tr>
<tr>
<td>master's degree</td>
<td>11</td>
<td>27.5%</td>
</tr>
<tr>
<td>doctoral degree</td>
<td>3</td>
<td>7.5%</td>
</tr>
<tr>
<td>*other</td>
<td>4</td>
<td>10.0%</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Learning Assistance Services

Staff Background. The 40 survey respondents indicated that of those working in learning assistance offices, 5.1% have an associate's degree, 24.35% have a bachelor's degree, 51.28% have a master's degree, 16.66% have a doctoral degree and 2.56% have a specialist's degree. There were 43 different types of programs studied by learning assistance staff members. The types of academic programs studied are listed in Table 4.

The number of staff working in learning assistance offices varied greatly. The majority of respondents indicated either one or two full-time staff members while there was one respondent indicating a full-time staff of thirteen. Respondents indicated that part-time staff, (which may include student tutors), are frequently found in learning assistance centers. The range of part-time staff was from one to seventy-five, with the majority of respondents indicating only one part-time staff member (see Table 5).
Table 4 -- Programs of Study Represented by Learning Assistance Professionals

<table>
<thead>
<tr>
<th>Program of Study</th>
<th>n</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>reading</td>
<td>23</td>
<td>15.97%</td>
</tr>
<tr>
<td>English</td>
<td>21</td>
<td>14.58%</td>
</tr>
<tr>
<td>math</td>
<td>13</td>
<td>9.02%</td>
</tr>
<tr>
<td>counseling</td>
<td>13</td>
<td>9.02%</td>
</tr>
<tr>
<td>education</td>
<td>8</td>
<td>5.55%</td>
</tr>
<tr>
<td>student personnel</td>
<td>5</td>
<td>3.47%</td>
</tr>
<tr>
<td>learning disabilities</td>
<td>4</td>
<td>2.77%</td>
</tr>
<tr>
<td>communications</td>
<td>4</td>
<td>2.77%</td>
</tr>
<tr>
<td>psychology</td>
<td>4</td>
<td>2.77%</td>
</tr>
<tr>
<td>*other</td>
<td>49</td>
<td>34.02%</td>
</tr>
<tr>
<td>Total</td>
<td>144</td>
<td>99.94%</td>
</tr>
</tbody>
</table>

*This category includes 34 types of programs. Examples include: music, art, biology, chemistry, forestry, sociology, religion, instructional technology, history, curriculum and instruction and law.

Table 5 -- Staff Members in Learning Assistance Programs

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>range</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>full-time</td>
<td>132</td>
<td>1-13</td>
<td>3.66</td>
</tr>
<tr>
<td>*part-time</td>
<td>217</td>
<td>1-75</td>
<td>7.48</td>
</tr>
<tr>
<td>*other</td>
<td>5</td>
<td>0-5</td>
<td>5.00</td>
</tr>
</tbody>
</table>

*Some institutions included support staff, student staff and tutors.
Learning assistance programs

Of the 40 responding institutions, 67.5% offer classes or workshops for their students. (Types of classes offered are listed in Table 6.) In regard to the primary function of learning assistance programs, many respondents listed tutorial services, remediation and skill development. One respondent defined the primary function as "To assist students in becoming more competent, self-confident and efficient learners so they will be able to meet the college's academic standards and attain their own educational goals." This response is consistent with that of literature describing goals and objectives for postsecondary learning centers. For example, Capps (1984, p.4) identifies the following goals and objectives:

1. To develop independent life-long learners.
2. To develop self-actualizing individuals.
3. To accommodate diverse learning styles.
4. To provide teaching-learning options not available in the classroom.
5. To develop initiative, self-direction, independence, responsibility, decision-making, positive self-concept, confidence and organizing skills in students.

One response gave additional insight into the institution's need for learning assistance:

"The mission of the Academic Skills Center is to provide academic support programs necessary to increase retention and graduation rates of the students served."
Table 6 -- Classes and Workshops Offered through Learning Assistance Programs (N=40)

<table>
<thead>
<tr>
<th>Type of class/workshop</th>
<th>n</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>reading</td>
<td>18</td>
<td>45.0%</td>
</tr>
<tr>
<td>study skills</td>
<td>19</td>
<td>47.5%</td>
</tr>
<tr>
<td>basic math</td>
<td>14</td>
<td>35.0%</td>
</tr>
<tr>
<td>writing</td>
<td>8</td>
<td>20.0%</td>
</tr>
<tr>
<td>other*</td>
<td>25</td>
<td>62.5%</td>
</tr>
</tbody>
</table>

*Other classes and workshops offered include college orientation, spelling, independent studies, accounting, personal finance, studying the sciences, critical thinking, vocabulary enrichment, metric system, ESL, and physics/electronics mini courses.

Student Information

Learning disabilities and students. When asked for the number of students who are diagnosed as learning disabled before entering college, 43.47% of respondents replied that this is either a very small number, the information is unknown or that it is not handled through their office. Regarding students who are diagnosed as learning disabled after entering college, 20% of respondents replied that this is either a very small number, the information is unknown or that it is not handled through their office; 38.8% responded similarly regarding students who claim to be learning disabled but have not been diagnosed. Twenty-eight or 57.5% of the 40 respondents were able to answer these three questions:

1. Of these students, what percentage has never been diagnosed as learning disabled yet claim to be learning disabled?
2. What percentage are diagnosed as learning disabled by a professional before entering college?

3. What percentage are diagnosed as learning disabled by a professional after entering college?

About one-third of the twenty-eight respondents who were able to answer the three questions above indicated that their responses were only "guesses" or "rough estimates." Table 7 illustrates the responses to the above questions. According to the responses, roughly 8.4% of those students seen in a learning assistance office claim to have a learning disability, yet have never been through diagnostic testing. Those who were diagnosed as having a learning disability before college represent about 17.16% of the students seen by learning assistance professionals. Only 4.81% of those students seen by learning assistance professionals are diagnosed as having a learning disability while they are enrolled in college. Because a limited number of respondents (52.5%) answered these three questions, it is difficult to gain a true understanding of this statistic.

Mangrum and Strichart reported in 1984 that there was not a lot of reliable data to identify the number of students with learning disabilities; "Although definitive data is [sic] lacking, there are indications that many learning disabled students are attending colleges and universities. In many cases, they are attending a college where no special program exists to meet their needs" (p. 4). Because it is not required for applicants to indicate a learning disability, their presence is generally unknown. Survey responses indicate that this is a trend that has not changed since 1984.
Table 7 -- Students Learning Disabilities - Estimated Time of Diagnosis

<table>
<thead>
<tr>
<th>Time of Diagnosis</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>never been diagnosed, claim to have a learning disability</td>
<td>8.40%</td>
</tr>
<tr>
<td>diagnosed before college</td>
<td>17.60%</td>
</tr>
<tr>
<td>diagnosed during college</td>
<td>4.81%</td>
</tr>
</tbody>
</table>

Learning Disabilities and Learning Assistance Programs

Respondents indicated that only 12.5% of institutions have learning disability assessment programs on their campuses; 80% do not; and 7.5% did not respond. Yet, 70% of those responding said that they have special services available for students with learning disabilities; 17.5% do not; 12.5% did not respond. Of those institutions responding, 55% of learning assistance professionals are trained to identify/recognize potential students with learning disabilities, 32.5% are not (12.5% no response) while 52.5% of respondents indicated that their staff was trained to work with students who have learning disabilities and 27.5% are not trained (20% no response). In regard to training, 47.5% of respondents said that training for faculty and staff is available while 37.5% indicated that no training was available to help faculty and staff better work with learning disabled students.

The amount of time that students with learning disabilities spend with learning assistance professionals varies depending on the institution. Some respondents stated that
it is based on student need or preference; others have set standards for students with learning disabilities (see Table 8); 32.5% did not respond to this question.

Table 8 -- Standard Number of Meeting Times Between Students with Learning Disabilities and Learning Assistance Professionals (N=40)

<table>
<thead>
<tr>
<th>time frame</th>
<th>range</th>
<th>mean</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>per week</td>
<td>1-3</td>
<td>1.81</td>
<td>11</td>
</tr>
<tr>
<td>per month</td>
<td>1-3</td>
<td>1.5</td>
<td>6</td>
</tr>
<tr>
<td>per semester</td>
<td>1</td>
<td>1.00</td>
<td>3</td>
</tr>
<tr>
<td>per academic year</td>
<td>2</td>
<td>2.00</td>
<td>1</td>
</tr>
<tr>
<td>as needed</td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>no response</td>
<td></td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>40</td>
</tr>
</tbody>
</table>

*Although 52.5% of respondents indicated a standard number of times that students meet with learning assistance professionals, it was also noted that it would still vary by student and need.

Vogel and Adelman (1993) state that an institution which is giving the maximum response to Section 504 provides one-on-one assistance working with students one-to-two hours per week initially. "Frequency and duration of meetings between the students and LD specialist are determined based on academic record of success, specific course load, student goals, and need for emotional support among other factors" (Vogel & Adelman, 1993, p. 103).

In response to support services available to students with learning disabilities, 95% indicated that tutoring was an option. Of those responding yes, 28.9% indicated that
their tutors are trained to work with students who have a learning disability; 63.5% do not have tutors trained in learning disabilities; and 7.89% did not respond. "While many colleges and universities claim that they have programs for learning disabled students, they do little more than admit learning disabled students and make their regular support services accessible to them " (Mangrum & Strichart, 1984, p.3). Support services available are listed in Table 9.

Table 9 -- Support Services Available

<table>
<thead>
<tr>
<th>Service</th>
<th>n</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>extended testing time</td>
<td>35</td>
<td>87.5%</td>
</tr>
<tr>
<td>note taking</td>
<td>33</td>
<td>82.5%</td>
</tr>
<tr>
<td>books on tape</td>
<td>28</td>
<td>70.0%</td>
</tr>
<tr>
<td>reading service</td>
<td>28</td>
<td>70.0%</td>
</tr>
<tr>
<td>alternate testing</td>
<td>27</td>
<td>67.5%</td>
</tr>
<tr>
<td>faculty notification</td>
<td>27</td>
<td>67.5%</td>
</tr>
<tr>
<td>*special equipment</td>
<td>20</td>
<td>50.0%</td>
</tr>
<tr>
<td>referral within institution</td>
<td>17</td>
<td>42.5%</td>
</tr>
<tr>
<td>**other</td>
<td>7</td>
<td>17.5%</td>
</tr>
<tr>
<td>LD testing</td>
<td>6</td>
<td>15.0%</td>
</tr>
</tbody>
</table>

*Special equipment includes computers in classrooms, Kurzwell Reader, and 4-track recorders for recorded textbooks.

**Other options listed by respondents include sign language, money provided by Perkins to buy special equipment as needed, NCR paper for note takers, ld screening, learning disabled support groups and learning disability consultation with certified specialists. Large print tests and books are an option at some institutions as are voice activated computers, tape players and Franklin Spellers. One institution uses Tinker Toys, Legos and Soft Bricks for color coding language structures for visual/non-verbal learners.
Motivation and Students

When asked about motivation and college students, 75% of respondents indicated that they believe motivation is a problem, 5% said it is not and 20% did not respond. One respondent's reply indicated that she believes motivation is not a legitimate concept; "Motivation is a graduate school theory. Join the real world and see what it really is. Motivation isn't something you bottle and sell. All motivational materials do is cause someone to part with $198.00 and make the designer rich. Hoax of education." Thirty-five percent said that they are familiar with specific motivational theories, 45% were not and 20% did not respond.

In regard to motivational theories, few respondents indicated a specific theory or theorist which has been helpful to them in working with students. Those answers which did identify specifics included attribution theory, Wlodkowski's motivational model, and such theorists as Canter, Hunter, Cangelosi, and such inventories as Canfield and Kolb. Others listed motivational techniques used without identifying a specific theory base such as goal setting, learning contracts and positive reinforcement. Comments offered by respondents which indicate the use of motivational theory in practice are, "We have made no attempt to apply any specific motivational theory," and "In my practice, by often combining social learning theory, self-efficacy theory, cognitive theory and some of my own experience, I guess I've been using an eclectic approach with psychological models to assist students with motivation."

Many respondents indicated that they distinguish motivational problems from learning disabilities through one-on-one work. Personal interviews, observation and
experience were most common replies: "Personal experience with LD allows me to pretty much i.d. an LD student who may not even know it himself." Fewer responded that they rely on testing and assessment instruments or documentation and self-identification for distinguishing motivational problems from learning disabilities. One respondent indicated the use of motivation in identification of a learning disability; "If my experience and training alert me to the possibility, a student seems motivated but can't seem to grasp academic material, I suggest student to be tested only after talking to student a great deal." Others indicated that a distinction is not made; "I don't. The difference lies in who wants to succeed and who doesn't. It's not an LD or not issue; it's an individual issue." A similar reply in relation to this issue was "motivation" and "learning disability" are two separate continuums which interact. We do not try to distinguish between them."

Two respondents indicated that they look for specific signals from the students - those with motivational problems tend to "have poor attendance, no prior work on class material, does not seek help; those with learning disabilities may say, "I've done everything I know how and I still can't do well in class." If faculty agree with this statement, the respondent suspects a learning disability. This response seems consistent with Raffini's (1988) study on self-worth theory which suggests that students avoid failure rather than attempting to pass. Another respondent indicated that instructors may notice unusual behaviors in writing assignments such as reversal of letters, word choice and unusual spelling. This alerts the learning assistance professional that there is probably a learning disability rather than a motivational problem.
The majority of respondents indicated that counseling (personal and academic) and/or mentoring were strategies used in helping students with motivational difficulties. Also frequently mentioned was the use of peer tutors, goal setting, encouragement/positive feedback/supportive environment as well as various skill development options. One response indicated how specific theories were used to help motivate such students; "with social learning theory, I often will model academic behaviors and display enthusiasm about their coursework in our session that will hopefully result in some observational and vicarious learning and motivation. Likewise, keeping in mind self-efficacy theory, I attempt to determine a student's belief about their abilities and sense of their own competencies for success. With a student who has had little success initially, I am often dispelling the myth that their new found success was based on luck or an easy exam or assignment. I encourage them to believe that their own effort will affect their success. In addition, attempting to recognize a student's stage of cognitive development can be helpful in monitoring and producing academic success."

This response indicates the professional's understanding of attributional theory and the need for students to attribute their successes to a controllable factor - their effort.

In relation to strategies used for students with motivational problems, respondents indicated that students with learning disabilities often receive more concentrated help. At some institutions students with learning disabilities reportedly are given help based on the strategy suggested by a professional giving the learning disability diagnosis. Another strategy which was frequently mentioned was to help students identify their learning style(s)/strengths and helping those students with learning disabilities "enhance their
strongest learning modalities." This is consistent with Mangrum and Strichart's (1984) research which suggests using an IEP (individual education program) to identify strengths and weaknesses of the student so that he/she may concentrate on using his/her strengths.

Also mentioned was that "instructors comply with ADA [American Disability Act] and are not permitted to do anything special to deal with LDs except in documented cases -which are very rare." Others responding to this question indicated that the services provided for students do not differ. One responded by saying "all students have all services available to them." This suggests that these institutions are meeting the needs of students with learning disabilities from a low end response as Vogel and Adelman (1993) have suggested. Basic services are being offered and labeled as learning disability services, yet they can not meet the special needs of students with learning disabilities.

Identification and Assessment

The survey listed seven possible identification and assessment tools often associated with the work of learning assistance professionals. Survey results indicate that those in learning assistance frequently use such tools as indicated in Table 10. Respondents also identified 60 tools for identification and assessment in learning assistance. Those listed by respondents in the "other" category included tests designed by the particular institution to meet the needs of its program.
Table 10 -- Identification and Assessment Tools

<table>
<thead>
<tr>
<th>Name of Tool</th>
<th>n</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nelson-Denny Reading Test</td>
<td>20</td>
<td>50.0%</td>
</tr>
<tr>
<td>LASSI</td>
<td>12</td>
<td>30.0%</td>
</tr>
<tr>
<td>Canfield Learning Styles Inventory</td>
<td>5</td>
<td>12.5%</td>
</tr>
<tr>
<td>Stanford Diagnostic Reading Test</td>
<td>5</td>
<td>12.5%</td>
</tr>
<tr>
<td>Descriptive Tests of Language Skills</td>
<td>4</td>
<td>10.0%</td>
</tr>
<tr>
<td>Wide Range Achievement Test</td>
<td>3</td>
<td>7.5%</td>
</tr>
<tr>
<td>Brown-Holtzman Survey of Study Habits and Attitudes</td>
<td>2</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

Those institutions using the Nelson-Denny indicated that it is used to measure improvement in reading skills, for program assessment, to determine "appropriate activities and levels in reading comprehension and efficient reading," and to give students general information concerning improvement in vocabulary and comprehension. One institution requires all incoming students to take the test and those who score below a particular level are required to enroll in a reading improvement course. Another
institution requires students to take the Nelson-Denny to qualify for financial aid as well as for placement in reading classes.

Another institution uses the Nelson-Denny to measure reading competencies of students in particular majors by request of the academic departments. Lastly, one respondent commented, "Reading is the second greatest problem students have. It [the Nelson-Denny] helps give a picture of where a student is and what assistance is needed."

Those using the LASSI used it for a Freshman study skills course required for first-year students. Another institution uses the LASSI to assess a student's attitudes, motivation and behavior with relation to study habits before one-on-one counseling sessions.

Other assessment tools were identified as important for course placement, (especially math, reading and writing), and self understanding for learning styles, strengths and weaknesses. The majority of responses indicated assessment tools were used for the purpose of identifying skill deficiencies. A few responses suggested that motivation should be investigated through assessment tools. There were no indications of assessment tools being used to help in the identification of learning disabilities.

Discussion

The data supplied indicate that those in learning assistance programs believe that the purpose of their programs is to help students succeed academically. The majority of programs use a combination of classes and workshops, individual counseling, assessment tools, peer tutoring and support systems that meet the needs of individuals and institutions to achieve their goals.
Although only 12.5% of respondents indicated that their campuses are capable of learning disability assessment on campus, 70% indicated that special services are available for students with learning disability needs. Through data provided it is difficult to assess the level of accommodation provided by each institution. It appears as if the programs of those responding to this survey vary in their responses to Section 504 of the Rehabilitation Act. This is consistent with Vogel and Adelman's (1993) discussion of low end responses versus maximum responses to Section 504.

Special support services offered can be placed in three categories: 504 Access Services, Special Services and Remedial Services. According to Vogel and Adelman (1993) those institutions which have a low student-staff ratio (15:1) and full-time staff with specific training in the field of learning disabilities tend to offer all three categories of support services. Such institutions can be categorized on the maximum response end of the continuum.

The 40 institutions responding reported they employed a full-time learning assistance staff ranging from 1 to 13 with the majority of institutions having 1 or 2 full-time staff members. The student-to-full-time staff ratio ranged from 50:1 to 2450:1. With the information reported the student with learning disability to full-time staff ratio cannot be determined. Vogel and Adelman (1993) suggest that for a maximum response to Section 504 this ratio should be 15:1.

It is also difficult to determine how institutions are meeting the needs of students with learning disabilities because many responses indicated that such students were served through other campus services. At these institutions the learning centers are
working with students other than those with learning disabilities. Specific learning

disability services have been designed and implemented outside of the traditional learning
center.

According to respondents, of those students seeking help from learning assistance
centers, less than 1% and up to 25% either claim to be learning disabled or have been
diagnosed as learning disabled. In regard to support services available for students with
learning disabilities, 87.5% indicated that some services were offered other than tutoring.
It seems from the information gathered that learning assistance professionals believe that
they are meeting the needs of the learning disabled population at their institutions. Those
institutions on the low end of the support continuum may be meeting current perceived
need, but they may not be reaching many other students in need. Perhaps those students
with learning disabilities are choosing to go to institutions where learning disability
assistance is available with a maximum response to Section 504.

The majority (75%) of respondents indicated motivation is a problem with college
students, yet only 35% reportedly have knowledge of motivational theories. Those who
use techniques for helping students with motivational difficulties tend to use techniques
supported by motivational theory (such as goal setting). Concrete information regarding
techniques used for motivational problems and the base upon which the techniques were
developed were not identified by respondents (with the exception of one).

In identifying students with needs, most assessment tools used identify skill
deficiencies in reading, writing and mathematics. A few of the instruments identify
motivational difficulties. In response to the use of such tools, the majority of respondents
indicated that students would be placed in remedial courses if warranted or receive counseling as needed.

There is a need for learning assistance professionals to receive some training in learning disabilities. When looking at the response to this survey, it seems that those working in learning assistance programs are meeting the needs of students with learning disabilities on the low end of the response continuum (Vogel & Adelman, 1993).

However, formal education in the area of learning disabilities may not be needed for those serving in the capacity of learning assistance professional. At some institutions this need is being met through another office or program. Institutions with large populations of students with learning disabilities tend to have a separate office which supports and advocates for such students. Perhaps awareness of types of learning disabilities and advocate techniques (such as helping faculty understand the special needs of specific students) can be developed through professional workshops and training. Those institutions without special assistance programs may not be meeting the needs of the few students with learning disabilities they have. Such institutions may be missing the benefits of retaining and attracting students with learning disabilities.

From the data collected it seems that learning assistance professionals tend to follow their instinct and personal experience when working with students. Perhaps coupling this approach with a knowledge base of motivational theory would prove beneficial for students who do not succeed in college due to lack of motivation.

A few institutions indicated that assessment tools were used to help identify students with motivational problems. Counseling, peer tutoring, goal setting and skills
development were all mentioned as services offered for students with motivational problems. No one mentioned developing motivational forms of education. The training of faculty to better meet the needs of students in the classroom was not given as an option. This goes back to Wlodkowski's statement that "Knowledge is not in and of itself motivating. It is the presentation and process of learning knowledge that can make it compelling" (Wlodkowski, 1985, p.5). If students are capable of learning, they are much more likely to respond to "ideas and skills that will make a difference in their lives, and they are much more likely to embrace the demands of the course" (Wlodkowski, 1985, p.4). It is difficult for students to be motivated when they find their course work to be boring.

Summary

The majority of responses to the survey were from professionals at four-year private institutions. According to all responses received, most learning assistance offices have one or two full time staff members who generally have a master's degree. Although the goals of the programs vary, responses indicated tutorial services, remediation and skill development to be the primary purposes of the programs.

In regard to learning disabilities and students, a little more than one-half of the respondents were able to identify the percentages of students with learning disabilities who seek help from learning assistance centers. For many who responded to this question their replies were rough estimates. Of those institutions replying, only about 12.5% have learning disabilities assessment on campus. Yet 70% of respondents claim to have special services for students with learning disabilities. Those services range from
the basics which are offered to all students to specific support programs designed to meet the needs of individual students with learning disabilities. Approximately one-half of the program respondents indicated that their staff is trained to work with students who have learning disabilities.

The majority of respondents (75%) indicated that motivation is a problem for college students. However, only 35% of those responding said that they are familiar with specific motivational theories. Many indicated that working with students on a one-to-one basis helps them to distinguish between motivational problems and learning disabilities. Techniques such as counseling and mentoring along with skill development options tend to be the most popular for working with students who have motivational problems.

Identification and assessment tools are frequently used in learning assistance to assess skill level or attitudes and motivation for learning. No identification or assessment tools for learning disabilities were identified by any of the respondents.

The responses to this survey have helped to develop an understanding of the nature of current day learning assistance centers. Based on the information provided through this survey and the review of the literature, conclusions and recommendations are offered in Chapter V.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Learning assistance centers began in postsecondary institutions out of a need to help college students meet their potential as learners. Although learning centers vary, they tend to share the goal of helping students learn more efficiently and effectively. This includes students with learning disabilities and those with motivational problems.

The need to help students reach their academic goals has become even more important in light of current institutional needs for retention and a need to meet the requirements of the Rehabilitation Act of 1973, Section 504. Current literature suggests that students in higher education are requiring more help in two areas: (1) combating low motivation, and (2) overcoming academic difficulties due to learning disabilities. This study has focused on the importance of learning assistance professionals' awareness of the differences between those students who do not achieve academically because of low motivation and those with learning disabilities.

With regard to motivation, three theories were described: intrinsic and extrinsic motivation, attribution theory and locus of control, and self-worth theory. Included are suggestions for identifying and assessing students by
considering the characteristics of motivational problems and those tools available to learning assistance professionals for assessment. Using the theory base presented, a discussion of past studies designed to help improve student motivation was included. This same approach was used to clarify the need to identify learning disabilities in college students.

To exemplify the complexity of learning disabilities several definitions were presented along with an explanation of the many types of learning disabilities (see Appendix A). Examples of characteristics were given to help in the identification of students who may be experiencing learning disability difficulties. Also presented were examples of intervention techniques. Without an understanding of learning disabilities, compliance with the Rehabilitation Act of 1973, Section 504, can be very difficult. In order to meet the requirements of Section 504, faculty and staff should be involved in the implementation of services and techniques. By preparing faculty to identify students with motivational disabilities or learning disabilities, more students may be helped. Educating faculty about techniques to be used in the classroom may improve the opportunity for all students to learn more and increase performance.

The information gathered from this study included a review of journals, articles and books relevant to the topics of learning assistance centers and motivational and learning disabilities in postsecondary education. To develop an understanding of learning assistance centers, their professionals and their work with students who may have motivational or learning disabilities, a survey was created by the researcher. After the survey was accepted by the Institutional Review Board at Loyola University, the
survey was sent out as a pilot study and subsequently revised. After revision, the survey was sent to 100 Midwestern institutions. The data from 40 of those institutions were collected and analyzed.

The results of the study support several findings found in the literature review: (1) that learning assistance centers are as varied as their institutions - yet they have a common philosophy; (2) that postsecondary institutions can be placed anywhere on a continuum from low to high in regard to their response to Section 504; and (3) that motivation can be a serious problem for college students.

Conclusions

Several conclusions can be drawn from this study. First, although a federal law requires postsecondary institutions to make accommodations for students with learning disabilities, the interpretation of this law varies at the institutional level. Some institutions are making a maximum response through the development of very sophisticated programs. Such programs include the hiring of a Learning Disability Specialist(s), and providing Access Services, Special Services and Remedial Services. The majority of institutions responding to the survey offer Remedial Services (which are usually available to all students) while fewer offer Access Services.

From the information collected, it can be concluded that many institutions are meeting Section 504 requirements in a range of minimal to a medium level of accommodation. This means that students with learning disabilities who attend these institutions are probably having their needs met minimally or perhaps a little better. For institutions trying to improve retention or enrollment rates, improving learning disability
services may increase the academic success rates for college students with learning disabilities.

Based on the survey data, between 2/3 and 3/4 of those working in learning assistance have graduate degrees. Degrees received represent a wide range of 43 different programs; few of which involve learning theory. Approximately 30% of degrees earned by learning assistance professionals represent the areas of English and reading. It is evident through this research that a professional educational standard for those entering the field of learning assistance does not exist. Yet, the knowledge base needed to help students succeed is the same in higher education environments.

Of those responding to the survey over 2/3 indicated that their programs offer classes or workshops in areas such as study skills (47.5%), reading (45.0%), and basic math (35.0%). This is consistent with the overall response that the primary function of learning assistance programs is to provide tutorial services, remediation and skills development. A clear understanding of the need for learning disability assistance was not gained through this study.

Respondents reported that approximately 8.4% of students claim to be learning disabled yet have never been diagnosed formally; 17% of students have received a formal diagnosis by a professional prior to entering college; and only 5% of students are diagnosed as having a learning disability by a professional after entering college. Some respondents indicated that their particular institutions draw a larger than normal percentage of students with learning disabilities based on the accommodations offered. Other institutions indicated that their programs offer no additional assistance to those
with learning disabilities and therefore do not have a count on the number of students with learning disabilities they serve. Thus, an accurate understanding of the presence of students with learning disabilities is still unknown in higher education.

Of those responding, 80% revealed that their institutions do not have learning disability assessment services on their campuses; only 12.5% of institutions offer these services. Only about 1/2 of the respondents revealed that they and their staff are trained to identify/recognize students with learning disabilities. Over 1/3 of institutions do not provide training for faculty and staff. Yet, 70% indicated that they provide additional services for students with learning disabilities while 17.5% do not. Additional support services provided by over half of the institutions specifically for students with learning disabilities include extended testing time, note taking, books on tape, reading service, alternate testing, faculty notification and special equipment. There were no indications of assessment tools used to identify learning disabilities in students.

In regard to motivation, the majority of respondents indicated that lack of student motivation is a problem on the campus. Only 5% believe that motivation is not a problem. In response to lack of motivation most respondents noted counseling and/or mentoring as strategies used in helping students with motivational difficulties. The LASSI was a tool used by 30.0% of respondents to help in assessment of motivational difficulties.

Faculty were rarely mentioned in survey responses returned. The literature regarding both learning disabilities and motivation emphasized the importance of educating faculty. Faculty who are unaware of and do not understand the needs of those
with learning disabilities are less likely to be helpful. This is also true for students who have problems with motivation for.

If learning assistance professionals are the only people who work with students in an attempt to improve motivation or to improve learning for those with learning disabilities, they may not find much success. According to the literature, the role of the instructor is also very important. By working with faculty to improve teaching techniques, learning assistance professionals greatly increase the chances of student success.

Using classroom teaching strategies to meet needs of students with learning disabilities can help all students. Some suggestions include using techniques which use all the senses to reach the needs of more students. Incorporating techniques such as synergogy helps to get students involved and may help students to overcome battles with motivational problems. Even more important is to have a faculty which is cognizant of the accommodations needed for students with learning disabilities and the implications of those accommodations.

Limitations

Due to the comparative nature of this study, the topic areas presented could not be covered in the depth required to gain a complete understanding of the areas of motivation, learning disabilities or learning assistance centers. Each of these topic areas alone could generate enough material to present volumes of information. This research piece gives only a basic comprehensive view of the areas researched. To gain a workable knowledge of any of the three areas one should consult research specifically geared toward that area.
A second limitation of this study is related to the survey conducted to generate information regarding learning assistance centers. With a 40% response rate, the data contained in this study can not be considered complete and accurate. Another concern with the survey is related to the questions which generated qualitative responses. Many of the responses only led to more questions for the researcher. Had a follow-up survey been conducted, perhaps the data received for this study would be more valid.

Recommendations for Learning Assistance Professionals

This study has reinforced the importance of learning assistance in postsecondary education. With the increase in the diversity of student populations, the knowledge base of learning assistance professionals should become more diversified. To improve their knowledge base, those in learning assistance should take advantage of learning opportunities. Self-education can be the first step to an increased knowledge base.

Journals, books and professional conferences can all help in the development of a knowledge base for learning assistance professionals. In regard to learning disabilities, those in learning assistance should first gain an understanding and working knowledge of Section 504 and its implications. Working with learning disability specialists can further the understanding of a maximum response to Section 504 and how those accommodations can be implemented at various types of institutions with differing resources. Perhaps the implementation of such training can be part of the conferences of regional organizations. Once an understanding of the accommodations needed is developed, a response team should be identified.
Learning assistance professionals should create procedures to help students with learning disabilities. Part of this procedure should include the education of the faculty. By creating a learning environment for the faculty, more faculty will successfully work with students with learning disabilities.

In regard to motivation, learning assistance professionals should become more aware of theories and how they can be applied to students' academic lives. Developing programs (such as Perry's et. al., 1993) to identify and help students with motivational disabilities can prove very beneficial. Helping faculty to be more aware of motivation as an interactive process (Wlodkowski, 1985) is the second step in combating motivational problems in the classroom. Becoming aware of techniques that involve all students in the learning process can improve teaching techniques as well as student response to the material.

Future Research

This study focuses on two separate issues and the importance of distinguishing between the two when working with learning assistance programs. There are many questions which still remain regarding learning disabilities and motivation in regard to postsecondary learning assistance.

Vogel and Adelman (1993) suggest many options for future research in terms of learning disabilities in a postsecondary setting. In relation to learning assistance, an inquiry which examines the effectiveness of intervention techniques for postsecondary students with learning disabilities is needed. According to Vogel and Adelman (1993), in a review of 100 articles about adults with learning disabilities published in the 1970s and
1980s, none of these articles examined intervention effectiveness. This review also revealed a lack of research focusing on gender differences or on social-emotional functioning in this population.

Other areas to be considered for future research include success rates of postsecondary students with learning disabilities. In other words, how many students with learning disabilities complete a postsecondary program in relation to their nondisabled peers (Vogel & Adelman, 1993)? Also, are there predictors which would help to identify those students who will be successful at a postsecondary level? When considering accommodations, there are other questions that should be considered.

For faculty, administration and staff, a study looking at the level of knowledge regarding learning disabilities could help to identify need areas. Specific areas of training and means of implementing educational programs would help to enhance the current literature base (Vogel & Adelman, 1993).

In regard to motivation, research areas also include a focus on faculty. An area to be considered is the idea of motivation as an interactive process (Wlodkowski, 1985). What is the relationship between an instructor's motivation to teach and the students' motivation to learn the material? By identifying the importance of faculty motivation for teaching, it would be easier to identify methods of teaching in the postsecondary classroom that would help in the learning process of all students.

When considering the 1989 study by Lepper and Hodell which identifies the four primary sources of intrinsic motivation (challenge, curiosity, control and fantasy) (Raffini, 1993) there is little direction for those who are working with students. Perhaps
further investigation into methods of inducing intrinsic motivation in students at different levels would be helpful to both postsecondary instructors and learning assistance professionals.

Finally, research is needed which considers the learning styles of both students with learning disabilities and nondisabled students and the importance of integrating different forms of media in the teaching process to meet more students' needs. What are the most important forms of teaching that meet the needs of most students? By developing flexible intervention techniques which will reach more than one student in the classroom, more students will be retained and more will learn the knowledge presented in the postsecondary setting.
APPENDIX A

The following list taken from "The Post Secondary Learning Disabilities Primer" (Stewart, 1989, p. 5.1) reflects terms which are often used interchangeably with the term "learning disabilities":

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dyslexia</td>
<td>-primary reading disability</td>
</tr>
<tr>
<td>Dysgraphia</td>
<td>-primary writing disability</td>
</tr>
<tr>
<td>Dyscalculia</td>
<td>-primary calculating disability</td>
</tr>
<tr>
<td>Specific Language Disability</td>
<td>-difficulty with symbol systems</td>
</tr>
<tr>
<td>Strephosymbolia</td>
<td>-twisted symbol perception</td>
</tr>
<tr>
<td>Maturational Lag</td>
<td>-differences in the rate of maturation of different areas of the brain</td>
</tr>
<tr>
<td>Minimal Cerebral Dysfunction</td>
<td>-a quasi-medical term used when there are no hard neurological signs</td>
</tr>
<tr>
<td>Hyperkinetic Syndrome</td>
<td>-attention and organizational difficulties</td>
</tr>
<tr>
<td>Developmental Aphasia</td>
<td>-a disorder of language</td>
</tr>
<tr>
<td>Attention Deficit Disorder</td>
<td>-a new term used by the latest psychiatric classification manual</td>
</tr>
<tr>
<td>Types of Learning Disabilities</td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Associative Reactions</strong></td>
<td>-when one part of the body is moved, involuntary movement is present in another part of the body</td>
</tr>
<tr>
<td><strong>Auditory Perceptual</strong></td>
<td>-difficulty perceiving or processing auditory material</td>
</tr>
<tr>
<td>1. discrimination</td>
<td>-differentiating between similar sounds</td>
</tr>
<tr>
<td>2. sequencing</td>
<td>-perceiving sounds in the correct order</td>
</tr>
<tr>
<td>3. figure ground</td>
<td>-maintaining selective attention in the presence of background noise</td>
</tr>
<tr>
<td><strong>Catastrophic Response</strong></td>
<td>-an involuntary and/or overreaction to too many stimuli</td>
</tr>
<tr>
<td><strong>Cognitive Complexity</strong></td>
<td>-difficulty with perceiving and integrating many bits of information into an organized whole and expanding that organization to include new information</td>
</tr>
<tr>
<td>1. cognitive sequencing</td>
<td>-thinking in an orderly way</td>
</tr>
<tr>
<td>2. cognitive discrimination</td>
<td>-distinguishing two similar concepts</td>
</tr>
<tr>
<td><strong>Crossing the Midlines</strong></td>
<td>-inability to perform tasks across the midline of the body</td>
</tr>
<tr>
<td><strong>Directional Problems</strong></td>
<td>-discriminating left from right</td>
</tr>
<tr>
<td>Condition</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Disinhibition</td>
<td>Difficulty with behaving appropriately in a self-governing way</td>
</tr>
<tr>
<td>Intersensory</td>
<td>Trouble using two senses at once</td>
</tr>
<tr>
<td>Memory (short term)</td>
<td>Difficulty processing information to transfer into long-term memory</td>
</tr>
<tr>
<td>Motor Problems</td>
<td>Trouble moving one's body efficiently to achieve a certain goal; includes</td>
</tr>
<tr>
<td></td>
<td>perceptual-motor (coordination), visual-motor (seeing, then doing) and auditory-motor (hearing, then doing) problems</td>
</tr>
<tr>
<td>Proprioceptive</td>
<td>Perceptual; knowing where one is in space</td>
</tr>
<tr>
<td>Selective Attention</td>
<td>Partly intentional and voluntary focusing of attention on an aspect of the</td>
</tr>
<tr>
<td></td>
<td>stimulus field</td>
</tr>
<tr>
<td>Soft Neurological Signs</td>
<td>CNS functioning; signs include staring, not looking others in the eye, head</td>
</tr>
<tr>
<td></td>
<td>posturing, startle reactions</td>
</tr>
<tr>
<td>Tactile Perceptual</td>
<td>Difficulty perceiving or processing tactile material</td>
</tr>
<tr>
<td>1. immature</td>
<td>dislike touch</td>
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<td>-------------</td>
<td>---------------</td>
</tr>
<tr>
<td>2. defensiveness</td>
<td>avoid being touched</td>
</tr>
<tr>
<td>3. discrimination</td>
<td>feeling differences in texture</td>
</tr>
<tr>
<td>4. tactile pressure</td>
<td>perceiving right amount of pressure</td>
</tr>
</tbody>
</table>

Vestibular Perceptual
- perceiving a sense of balance

Visual Perceptual
- difficulty perceiving or processing visual material

| 1. figure ground | seeing an image in a competing background |
| 2. sequencing | seeing things in correct order |
| 3. discrimination | differentiating between similar objects |
| 4. depth | perceiving distance |
APPENDIX B

Behavioral Checklist

Student Name: ____________________________

Learning Behaviors

___ Unmotivated
___ Short attention span
___ Overreaction to stimuli
___ Appears disorganized
___ Unable to see optional problems
___ Has difficulty getting stared on a task
___ Performs written work sloppily and disjointedly
___ Restlessness
___ Unimaginative, unresourceful
___ Cannot function well on a time-restricted task
___ Poor Punctuality
___ Poor understanding of cause/effect relationships
___ Difficulty organizing thoughts for oral and written communication
___ Poor short-term memory

Interpersonal Behaviors

___ Defensive, argumentative
___ Withdrawn
___ Socially isolated
___ Lack of social awareness and impact
___ Gullible
___ Sensitive to social acceptance/rejection
___ Demanding with peers
___ Exhibits irresponsibility
___ Uncooperative
___ Poor judgment in social situations
___ Exhibits dependency
___ Inability to read social clues
Intrapersonal Behaviors

- Low self-esteem
- Anxious
- Lacks emotional reactivity
- Shy
- Emotionally volatile
- Appears guilty
- Self blame
- Depressed
- Inflexible, rigid

Taken from "The Post Secondary Learning Disabilities Primer" (Stewart, 1989).
A SURVEY OF LEARNING ASSISTANCE PROGRAMS AND SERVICES IN HIGHER EDUCATION

Institutional Information

Institutional Type: _2yr public _2yr private _other _4yr public _4yr private

Undergraduate head count: ______ part-time ______ full-time

Graduate head count: ______ part-time ______ full-time

Highest Degree offered: ______ bachelors ______ masters ______ doctorate

Admissions Requirements: (if applicable)

______ ACT score minimum

______ SAT score minimum

______ G.P.A. minimum

Learning Assistance Services

Staff Background

What types of degrees are held by those who work in your office (degree level and programs studied)?

________________________________________________________

________________________________________________________

________________________________________________________

If any of your staff have studied areas of specialty, please list:

________________________________________________________

________________________________________________________

________________________________________________________
How many staff members are in your program?

_____ full time  _____ part time

1. Does your office provide special classes for students?

   _____ yes  _____ no

   Please identify:
   ___________________________________________________
   ___________________________________________________
   ___________________________________________________
   ___________________________________________________
   ___________________________________________________
   ___________________________________________________

   (If classes are offered, please enclose a copy of the syllabus.)

2. What would you define as the primary function of your Learning Assistance program?

   ___________________________________________________
   ___________________________________________________
   ___________________________________________________
   ___________________________________________________
   ___________________________________________________

3. On average, how many students does your program work with in an effort to improve academic performance in an academic year?

   ____________________

STUDENT INFORMATION

Learning Disabilities and Students

4. Of these students, what percentage have never been diagnosed as learning disabled yet claim to be learning disabled?  ____________________

5. What percentage are diagnosed as learning disabled by a professional before entering college?  ____________________

6. What percentage are diagnosed as learning disabled by a professional after entering college?  ____________________

7. Does assessment of learning disabilities occur on your campus?

   _____ yes  _____ no

8. Does your program have special services available for students with learning disabilities?

   _____ yes  _____ no

9. Are Learning Assistance professionals trained to identify/recognize potential students with learning disabilities?

   _____ yes  _____ no
10. Are your staff trained to work with students with learning disabilities?
   _____ yes  _____ no

11. Is training available for faculty and staff who work with students who are learning disabled?
   _____ yes  _____ no

12. On average how many times do students with learning disabilities meet with a Learning Assistance professional?
   _____/week  _____/month  _____/semester  _____/academic year

13. Which of the following support services are available for students with learning disabilities on your campus?
   _____ Tutoring
   If yes, are your tutors trained specifically to work with students who are learning disabled?
       _____ yes  _____ no

   _____ Notetaking

   _____ Books on Tape

   _____ Extended Testing Time

   _____ Alternate Testing

   _____ Reader Service

   _____ Faculty Notification

   _____ LD Testing

   _____ Referral Within the Institution

   _____ Referral Outside of the Institution

   _____ Special Equipment Explain: __________________________________________

   _____ Other Explain: ______________________________________________________
Motivation and Students

14. Do you feel that motivation is a problem for students?
   __ yes __ no

15. Are you familiar with specific motivational theories?
   __ yes __ no (if no, move to number 17)

16. What motivational theories have been helpful in working with students?

17. How do you distinguish between students who are not motivated and those who have learning disabilities?

18. What strategies are used within your program in helping students who are having motivational difficulties?

19. How do these strategies differ from those used in helping students with learning disabilities?
Identification and Assessment

Which of the following tools do you use within your Learning Assistance program?

- Wide Range Achievement Test (WRAT)
- Descriptive Tests of Language Skills
- Nelson-Denny Reading Test
- Stanford Diagnostic Reading Test
- Brown-Holtzman Survey of Study Habits and Attitudes
- Canfield Learning Styles Inventory
- LASSI
- Other
- Other
- Other
- Other
- Other
- Other

Please explain why specific assessment tools are used within your program. Please include how often each tool is used and why:

<table>
<thead>
<tr>
<th>Tool:</th>
<th>Why:</th>
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</tbody>
</table>
Further comments:

Thank you for your time and cooperation in completing this survey. If you would like a copy of the survey results, please include your name and address.

Name: __________________________________________
Address: __________________________________________

Please Return by
March 11, 1994
APPENDIX D

Pilot Questionnaire

1. What did you think of the length of the survey?
   Too extensive  Fine  Not extensive enough

2. Are there any questions you would delete?
   _____ Yes  _____ No
   If yes, which one(s) and why?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

3. Are there any questions that you would have changed?
   _____ Yes  _____ No
   If so, how would you have changed those questions?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

4. How long did it take you to fill out the survey?
   ______________________________________________________

5. Were the questions clear?
   _____ Yes  _____ No
   Which questions may need to be clarified and why?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

6. Other comments:
   ______________________________________________________

Thank you for your time and your help with this survey.
February 21, 1994

Dear Learning Assistance Professional,

As you know, many of today’s college students face challenges that make achieving academically a daily struggle. As a Learning Assistance professional, you have probably identified many of these challenges and have worked with these students to help them overcome their personal challenges in order to succeed in college. Two of those challenges for college students are lack of motivation and learning disabilities.

As a graduate student in the College Student Personnel program at Loyola University Chicago, I am striving to better understand the work of the Learning Assistance professional. As part of this effort, I am conducting a survey regarding students who may not be motivated enough to succeed in college and those who may be struggling with learning disabilities. The enclosed survey asks questions pertaining to your experiences with students. Because you have first hand knowledge of students, your participation in this survey is vital to the success of my study.

All information from the survey will remain anonymous. The information provided by you will be summarized and included in my thesis. I greatly appreciate your time and your assistance in helping me to complete this project. Enclosed you will find a stamped envelope in which you may return the survey. Please return this survey to me by March 11, 1994.

Once again, thank you for your assistance. If you have any questions or concerns regarding this study, please feel free to contact me at 312-973-8256.

Sincerely,

Sandra LaBlance
6525 N. Sheridan
Residence Life
Chicago, IL 60626
REFERENCES


The author, Sandra S. LaBlance, was born in Fairview Heights, Illinois.

In May of 1990, Ms. LaBlance graduated from Millikin University with a B.A. in English Writing. The following fall she became a Resident Hall Director at Millikin. She remained in this position for two years. In the fall of 1992 she began working as a Graduate Assistant for the Department of Residence Life while pursuing a degree in College Student Personnel (CSP) at Loyola University Chicago.

After completing course work for the CSP program, Ms. LaBlance entered a position as Academic Services Counselor at North Park College in Chicago. In the summer of 1996 she accepted a position as Assistant Dean of the Niehoff School of Nursing, Loyola University Chicago.
The thesis submitted by Sandra S. LaBlance has been read and approved by the following committee:

Dr. Terry E. Williams  
Acting Dean, School of Education  
Loyola University Chicago

Dr. Sharon Silverman  
Acting Dean for Student Services  
Loyola University Chicago

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of the Master of Arts.

November 18, 1996  
Date

Terry E. Williams  
Director’s Signature