This is to certify that the

dissertation entitled

Improving the Employment Self-Concept of Persons with Disabilities: A Field Based Experiment

presented by

Jodi L. Saunders

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in *Rehabilitation Counselor Education*

Major professor

Date 8-27-98

IMPROVING THE EMPLOYMENT SELF-CONCEPT OF PERSONS WITH DISABILITIES: A FIELD BASED EXPERIMENT

By

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Counseling, Educational Psychology and Special Education

1998

ABSTRACT

IMPROVING THE EMPLOYMENT SELF-CONCEPT
OF PERSONS WITH DISABILITIES:
A FIELD BASED EXPERIMENT

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An individual with a disability is more likely to be unemployed and living at or below poverty level than a person who does not have a disability. Although the public rehabilitation program is a primary rehabilitation service provider for individuals with disabilities, with the purpose of assisting these individuals in reaching their employment objectives; the program has been increasingly criticized by consumers, disability advocates, legislators and others for inadequate employment outcomes for persons with disabilities. Developing and identifying effective rehabilitation strategies which facilitate, increase, and improve employment outcomes is of critical importance to achieving this essential rehabilitation objective. Research and literature reveal that self-concept is an effective predictor of rehabilitation outcomes; therefore the Comprehensive Labor and Employment Opportunities (CLEO program), designed to increase self-concept in persons with disabilities, was developed. The purpose of this study was to determine if participation in the CLEO program has a positive effect on the self-concept of persons with disabilities.

A quasi-experimental design with a non-equivalent control group was employed for this study. Subjects were recruited from three different public rehabilitation district

offices (one treatment site and two control sites) in Michigan. A pre and post measure of self-concept in both treatment and control groups was taken using the Tennessee Self-Concept Scale: (Second Edition) (TSCS:2). Primary research questions required the examination of growth within the treatment group, and difference in growth between treatment and control groups in the areas of Academic/Work self-concept and total self-concept.

Results of this study using paired samples t-tests and ANOVA's using difference scores as outcomes, revealed no significant growth within the treatment group in the area of Academic/Work self-concept at the time of posttest. These same analyses conducted on the Total self-concept scale indicated that there was significant growth within the treatment group in the area of Total self-concept ($p \leq .001$); and that there was a significant difference in growth between treatment and control groups ($p \leq .015$) at the time of posttest, with the treatment group having significantly more growth than the control group. Several analyses on additional self-concept scales included in the TSCS:2 revealed significant growth within the treatment group at the time of posttest on 7 additional scales; and between the treatment and control groups, with the treatment groups having significantly more growth than the control group on 5 additional scales.

It's not important that anyone know I made a difference;
What's important, is that the difference gets made.

- Jodi L. Saunders

Dedicated to Susan Hedges and Joyce Bowersox, my friends since childhood. So many lives were permanently changed by your presence, and again, by your deaths. You are truly missed. Dedicated also to the many others who grew up with us and have also battled cancer and passed away at very young ages.

Susan E. (Heller) Hedges	Joyce A. (Stanton) Bowersox
February 22, 1954 - March 28, 1989	June 6, 1963 - April 28, 1991

ACKNOWLEDGMENTS

First and foremost, I would like to express my sincere appreciation to my academic advisor, mentor, and dissertation chairperson, Dr. Michael Leahy. His guidance, encouragement, support, wisdom and high personal and professional standards constantly provided me with opportunities for growth, and helped me to remain persistent in pursuing this goal. His ability to make me laugh, provided me with perspective. His unfailing willingness to share with me his time was one of the greatest gifts I could have ever been given. His skills and abilities and mentor are not only appreciated, but truly admirable.

In addition, this study would not have been possible without the support of the Michigan Jobs Commission - Rehabilitation Services agency and the help of many individuals. Special thanks go to my colleagues at LDO, and to Dr. Lynn Brown and Sandy Peck. A special thank you also goes to Dawn McConnell my friend and colleague for her assistance with coordinating, data collection, and troubleshooting. Appreciation is also extended to the persons who volunteered to participate in this study, and the individuals with disabilities who I have had the opportunity to work with over the past 10 years.

I would also like to thank other members of my committee, Dr. Nancy Crewe, Dr. Ken Frank and Dr. Aaron Pallas for their support and guidance. I would like to extend a special thank you to Dr. Ken Frank for sharing so much of his knowledge, encouragement and time. Also, I would like to extend my appreciation to Dr. Rochelle Habeck for her guidance and support over the past several years. I would also like to thank Dr. Richard Coelho for his willingness to provide me with many learning opportunities over the past twelve years.

I wish to also thank Virginia Thielsen, a friend and fellow student, for her friendship, support and encouragement throughout this experience, and for helping me christen the Annex. Thanks also to Dr. Connie McReynolds for giving me the "Madison" perspective.

A warm thank you also goes to my friends in Ireland: Mrs. Nancy Wynne, Sister Martha Hegarty, Mr. and Mrs. Charlie McPartland, Mrs. Suzette Coleman, and the McCaffrey clan - Owen, Mary, Sean, Breege, Sheila, Grainne, Claire, Caitriona, and Granny McCaffrey.

Also, I wish to express a very special thank you to several individuals who have not only made a difference for me throughout this experience, but have made a difference in my life - Patricia Zipper, Chris Crosser, Fay Rogers, Molly Maloney, and my friend and great-grandmother Nettie Dietrich.

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LIST OF ABBREVIATIONS

ANCOVA.....Analysis of Covariance

ANOVA..... Analysis of Variance

CLEO.....Comprehensive Labor and Employment Opportunities Program

LDO.....Lansing District Office

MANOVA.....Multivariate Analysis of Variance

MJC-RS.....Michigan Jobs Commission-Rehabilitation Services

TSCS.....Tennessee Self-Concept Scale

TSCS:2.....Tennessee Self-Concept Scale: Second Edition

VR.....Vocational Rehabilitation

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CHAPTER 1

INTRODUCTION

The rate of employment for persons with disabilities is significantly lower than for persons who do not have a disability. According to the Bureau of the Census (1987, as cited in Satcher & Hendren, 1993), only 33.6% of the 13.3 million persons with disabilities of working age in the United States were participating in the labor force as compared to 78% of those without a disability (Satcher & Hendron, 1993). A recent survey of Americans with disabilities indicated that two thirds of working age Americans with disabilities were unemployed, even though 79% stated that they were interested in working (Taylor, 1994 as cited in Szymanski & Parker, 1996).

Assisting persons with disabilities to obtain and maintain employment is of primary importance to vocational rehabilitation service delivery systems and the rehabilitation counseling professionals who deliver those services. The centrality of the employment outcome to the rehabilitation counseling profession and to the role of the rehabilitation counseling professional has been both evident and demonstrable since the first studies of the role and functions of the rehabilitation counselor (see Jacques, 1959).

Since its inception, the primary purpose of the public rehabilitation program, and goal of service delivery has been to assist persons with disabilities to become employed

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(Bolton, 1987; Rubin & Roessler, 1995). The importance of employment as an outcome specifically within the public rehabilitation program has been consistently underscored by various pieces of legislation since the program was legislatively mandated in 1920. The importance of employment outcome was again reiterated most recently by the Rehabilitation Act Amendments of 1992. A primary component of these most recent amendments was a re-emphasis on increasing opportunities for persons with disabilities to prepare for, secure, maintain, and regain employment (PL 102-569). When one considers the primary purpose of the public rehabilitation system, in conjunction with the fact that disability is often related to unemployment and poverty (Szymanski & Parker, 1996), the need to identify methods to improve employment outcomes specifically for persons with disabilities becomes more obvious.

Statement and Significance of the Problem

An individual with a disability is more likely to be unemployed and living at or below poverty level than a person who does not have a disability (Szymanski & Parker, 1996). The public rehabilitation program is a primary rehabilitation service provider for individuals with disabilities (Wright, 1980), with the purpose of assisting these individuals in reaching their employment objectives. The primary focus of the state/federal rehabilitation program is to assist persons with disabilities in preparing for, locating, obtaining and maintaining employment (Rubin & Roessler, 1995).

Despite the state/federal programs' focus on employment outcome and the continuous reinforcing legislation; the public vocational rehabilitation agency has been increasingly criticized by consumers, disability advocates, legislators and many others for

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inadequate employment outcomes for persons with disabilities. In a study evaluating the outcomes of the public rehabilitation program, the Unites States General Accounting Office concluded "We found that ... those who do take part in the program receive, on the average, only modest services. The long term results are also modest" (1993, p. 1).

Although one could argue that the data used are not valid and representative of actual service provision and outcomes (data are obtained from forms which are often not accurately completed, and the computer systems will occasionally deny entry of some data regardless of accuracy); the need to improve employment outcomes for persons with disabilities and accurately measure these outcomes remains. Regardless of the data used, employment rates for persons with disabilities are persistently disappointing (Millington, Reid, & Leierer, 1997).

After evaluating the public rehabilitation programs' outcomes in 1993, the United States General Accounting Office (GAO) concluded that the evidence regarding employment outcomes was mixed. In addition, their analysis suggested that gains in economic status may be temporary (GAO,1993). These conclusions regarding program outcomes are crucial because the existence of the public rehabilitation program is justified legislatively as being a good investment of taxpayers money (Bolton, 1987; GAO, 1993; Rubin & Roessler, 1995). The justification is an economic one; citing that for every $1 spent on rehabilitation services, more than $1 is returned to the economy, since the newly employed individual now pays taxes and there is a possibility of reduction or discontinuation of public financial support (Bolton, 1987; Rubin & Roessler, 1995). In some cases, those using the economic argument regarding

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benefit-to-cost ratio have estimated that in excess of $10 is returned to the economy for every $1 spent (Bolton, 1987). Consequently, poor employment outcomes and only temporary economic gains for those who do become employed, could be devastating to both the public vocational rehabilitation program and the large number of recipients of rehabilitation services administered by this program.

Identifying strategies and effective methods which will increase the quantity and quality of employment outcomes for individuals served by the public rehabilitation program is imperative. "Demonstrating professional efficacy in the vocational domain is essential because there is little legislative rationale or market demand for the existence of rehabilitation counseling as a profession without vocational outcomes" (Millington, Reid & Leierer, 1997, p.215).

A number of studies have been conducted linking self-concept and/or components of self-concept (e.g. self-esteem) to both rehabilitation outcomes and to work behaviors and attitudes. The organizational behavior literature has devoted considerable attention to the construct of self-esteem (Ellis & Taylor, 1983). Research in this area has shown that self-esteem is related to both work behaviors and attitudes (e.g. job satisfaction, organizational satisfaction and job performance) (Korman, 1977; Tharenou, 1979). In the rehabilitation literature, a positive relationship between successful rehabilitation and self-concept has been demonstrated by several researchers (Bolton, 1976; Hobart & Walker, 1973; McGuffie, Janzen, Samuelson, and McPhee, 1969) and Hobart and Walker (1973) found it (self-concept) to be the most effective single predictor of rehabilitation outcomes for disadvantaged clients. In addition, improvement in self esteem (a

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component of self-concept) in specific areas (i.e. job seeking and employment) has been found to be an effective predictor of job search and work behaviors (Ellis & Taylor, 1983; Korman, 1970).

Despite the large amount of research that has been conducted relating self-concept and components of self-concept to job seeking skills, work behaviors and rehabilitation outcomes; the area of the job search process has largely been ignored (Ellis & Taylor, 1983). In addition, research intended to examine a causal relationship regarding self-concept has also largely been untouched. By designing and implementing a method of improving client self-concept in the area of job seeking and employment, it may be possible to effect behaviors and subsequently improve rehabilitation outcomes.

Purpose of the Study

The purpose of this study is to provide information regarding self-concept and self-concept change in persons with disabilities; with the ultimate goal of identifying and developing rehabilitation strategies which are effective in facilitating, increasing and improving employment outcomes for persons with disabilities. Specifically, this study examined the effects of an intervention designed to improve client self-concept in regard to employment and job seeking.

Volunteers participated in the Comprehensive Labor and Employment Opportunities (CLEO) program, designed to teach job seeking and employment skills, and to improve self-concept in the area of employment. Participants attended the nine week program which covered topic areas related to both self-concept and employment such as problem solving skills, and communications skills.

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This field experiment was carried out by taking pre and post treatment measures of overall self-concept, and 6 areas of specific self-concept: 1) Physical, 2) Moral, 3) Personal, 4) Family, 5) Social and 6) Academic/Work. A group of volunteers from different but demographically similar district offices completed the pre and post measures without participating in the Comprehensive Labor and Employment Opportunities (CLEO) program to serve as a control group.

The following research questions were addressed:

1) Is there a positive change in clients' total self-concept after participating in the CLEO program, as measured by pre and post treatment measures of the Tennessee Self-Concept Scale -Total Self-Concept Score?

2) Is there a positive change in clients' employment self-concept after participating in the CLEO program, as measured by pre and post treatment measures of the Tennessee Self-Concept Scale - Academic Work Score?

3) Is there a difference in growth between the treatment and control groups on employment self-concept as measured by the difference between pre and post measures of the Tennessee Self-Concept Scale (Second Edition) Academic/Work self-concept scale?

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4) Is there a difference in growth between the treatment and control groups on overall self-concept as measured by the difference in pre and post measures of the Tennessee Self-Concept Scale (Second Edition) Total self-concept score?

Definition of Terms

Self-Concept: Self-Concept is a construct which, by many definitions, includes several components. Websters New World Dictionary of the American Language defines self-concept as "An individual's conception of himself and his own identity, abilities, worth, etc." (Guralnik, 1980, p. 1292). Self-concept is a more inclusive construct than self-esteem, and contains cognitive and behavioral components as well as affective ones (Blascovich & Tomaka, 1991).

Role Specific Self-Concept: An individuals self-concept specific to a particular role (e.g. student, parent).

Area Specific Self-Concept: An individuals self-concept specific to a particular area (e.g. math, reading).

Self-Efficacy: An individuals confidence that s/he can achieve certain levels of performance (Bandura, 1982).

Self-Esteem: According to Stanwyck (1983), self-esteem has been referred to as the *affective* component of the self system. It is the overall affective evaluation of one's own value, worth, or importance; often thought to be the evaluative component of a

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Michigan Jobs Commission - Rehabilitation Services (MJC-RS): Is the public rehabilitation agency in Michigan. MJC-RS has 35 district offices and serves approximately 40,000 individuals with disabilities each year.

Orientation Meeting: is the first meeting an individual interested in receiving services from MJC-RS attends. Information regarding eligibility, services provided and delivery options is provided to interested individuals. Is essence, the individual is oriented to the agency, its purpose and services it can provide.

Follow-Up Services: After an individual is placed in employment, his/her case remains open for a minimum of 90 days with the rehabilitation counselor and client maintaining contact to address any issues which may impact the individuals ability to maintain employment. The services provided during this time are called follow up services.

Assumptions and Limitations

An assumption of this study is that self-report is a valid and reliable method of collecting information regarding self-concept. According to Wylie (1974), subjects' cognitions and attitudes about him/herself are private and beyond direct observation of the investigator, thus making self-report necessary, and construct validity an important consideration when using self report measures. The construct validity of the measure being used has been well established and extensive research has been done addressing factor structure and concurrent validity, among others (Fitts & Warren, 1996).

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Limitations of this particular design, referred to as a 'non-randomized control group pretest-posttest design' by Isaac and Michaels (1995) and 'nonequivalent control groups designs' by Cook and Campbell (1979) include the following threats to external validity: 1) Interaction of selection and history, 2) Interaction of selection and maturation and 3) interaction of selection and testing. These limitations have been taken into consideration when selecting data analysis procedures, and including procedures that will be used to take into account possible interaction effects.

Generalizability of results is another limitation. Although the use of a control group will improve the generalizability of results, the study is limited to persons with disabilities in Michigan who have attended orientation at Michigan Jobs Commission - Rehabilitation Services during a 5 month period in 1998. An assumption is being made that these individuals sampled are similar to other individuals who apply for services in the state of Michigan who have applied for services in the past, or who will apply for services in the future. The study is examining all disability types (with the exception of legal blindness) and should therefore be representative of persons with disabilities who apply for services in Michigan.

Because the public program is standardized across the nation simply by the fact that each agency is governed by federal regulations written by the federal government (Wright, 1980), it is reasonable to expect that the results from this study would generalize to other states in the nation as well. In addition, further standardization within the State of Michigan is achieved, by the fact that the public rehabilitation agency is further governed by state policies, making a stronger case for the generalizability of study results

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When considering limitations, it should be noted that this is a convenience sample and not all persons with disabilities who wish to become employed are able to pursue services with MJC-RS, either because of logistical reasons (e.g. individuals who are institutionalized), because of disability type (legally blind individuals are not served by Michigan Jobs Commission - Rehabilitation) or because they are not aware of services available to them and are therefore unable to access them.

An additional limitation to this study involves the fact that this particular intervention is time limited and will only address immediate effects of the intervention. It is recognized that following the subjects through to case closure and examining the employment results would be ideal. However, due to the average length of time a client receives services from the state/federal vocational rehabilitation program in Michigan, (an average of 20 months) prior to case closure; follow up measures at case closure are not feasible for the purposes of this study. Instead, a follow-up study examining the employment outcomes of the individuals in this study will be conducted.

The knowledge gained from this study could make a significant contribution by providing valuable knowledge and implications for practice in the field of rehabilitation counseling, impact on service delivery options of the public rehabilitation program, and other programs designed to assist persons with disabilities in becoming employed. Consequently, the results of this study could also positively impact the lives and employment potential of persons with disabilities.

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CHAPTER 2

REVIEW OF THE LITERATURE

A review of the literature was undertaken in order to fully establish a foundation, context and purpose for the present study. This review also served to assist in identifying appropriate instruments for measuring and assessing self-concept. Literature in the areas of personality theory, social learning theory, public rehabilitation outcomes, organizational behavior, and process and outcome research in rehabilitation was examined to provide a theoretically sound foundation and approach to the present study. Literature specifically addressing self-concept in the following areas was also closely examined: a) self-concept theory, b) self-efficacy theory, c) career development and efficacy, d) self-esteem, e) the salience of the self-concept and influencing change, f) the impact of self-concept on behaviors, g) the relationship between self-concept and rehabilitation outcomes, and h) the impact of self-concept on job seeking and employment for persons with disabilities.

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Self-Concept

Several variables (e.g. motivation, marital status, level of education, adjustment to disability) have been studied in regard to their relation to rehabilitation outcomes. Self-concept, which includes cognitive, affective and behavioral components (Blascovich & Tomaka, 1991) has been studied extensively and seems to be a useful predictor of positive rehabilitation outcomes (Kaplan & Questad, 1980). Self-concept is generally defined as ones perception of him/herself and the effect this perception has on behavior (Kaplan & Questad, 1980; Wylie, 1974). Because of this connection between perception of self and behavior, many believe that self-concept is the most critical factor in the motivation of the rehabilitation client (Bernstein, 1964; Berry & Miskimins, 1969; Guthrie, 1994). Based on studies of self-concept, this variable seems to be a useful predictor of success for persons with disabilities.

Personality and Self Theories

The idea that individual dispositions or personalities are significant determinants of behavior and behavior change is a theory that has long been postulated by psychologists (Leonard, Beauvais, & Scholl, 1995). Several authors within the area of personality and self theory address the construct of self-concept, components of the self-concept (e.g., self-esteem, self-efficacy) and related concepts (Bandura, 1977; Fitts, 1965; Rogers, 1951; Satir, 1972; Snygg & Combs, 1949; Wylie, 1969, 1974) in regard to personality and behavior change. Self-theories are based on the principle that individuals react to their world based on how they perceive that world, and that the most salient

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William James (1890) is generally identified as the earliest "self" psychologist and his writings are still standard reference for developmental discussions of self-esteem (Wells & Marwell, 1976). James (1890) described people as possessing basic self-seeking tendencies, and believed that the more successes an individual achieved, the higher that individuals individual's self-esteem. However, according to James this level of self-esteem was not a stable level but rather rose or fell with each success or failure (Wells & Marwell, 1976).

The self-concept is an important construct in Rogers' client-centered personality theory (Grummon, 1979). According to Rogers (1951) "Most of the ways of behaving adopted by the organism are consistent with the concept of the self" (p.507). Client-centered theory focuses on how people change and become, and the idea that people need to be more open to their experiences rather than trying to defend a rigidly organized self-concept is central to the theory. In his theory Rogers states that the individual reacts based on how he/she is experienced or perceived and not necessarily based on reality. Rogers believes it is the incongruity between the self-concept and experience that results in the individual being in conflict and thus vulnerable to psychological maladjustment (Grummon, 1979). Therefore, Rogers asserts that re-organizing the self-concept to include experience which has been previously denied or distorted will increase congruence between the self and experience (Grummon, 1979).

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Self image is also an important factor in Gestalt theory. The emphasis in Gestalt theory is on the process of moving from environmental support to self-support. Perls believes that there are several ways that individuals deviate from healthy functioning and growth, and all involve identification with the self-image (Elson, 1979).

In self-efficacy theory proposed by Bandura (1977) it is suggested that the key to human behavior, learning, and change, is the individual's expectations of his/her own efficacy in specific situations. Bandura (1977) asserts that an individual's efficacy expectations, based on four sources: successful experiences, verbal persuasion, vicarious experiences, and physiological states (emotional arousal); determine behavior. In summary, self-efficacy theory purports that the higher the individuals' self-efficacy, the better the performance (Bandura, 1982; Brown & Lent, 1992).

Satir (1972) and Satir, Stachowiak & Taschman, (1975) discussed the importance of self-worth and the role it plays in each individuals life. The belief central to these discussions is that self worth is learned, it influences behavior, and can be changed at any age.

Reality therapy also addresses the issue of self-concept and its' importance in psychological health and well being. Glasser (1965) states that the basis of Reality Therapy is to help individuals fulfill the need to love and be loved, and the need to feel they are worthwhile to themselves and others. Glasser believes that when these two needs are unfulfilled, the individual experiences pain and discomfort; and having these needs met are necessary for psychological health.

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In his monograph on self-concept and self-actualization, Fitts (1971) discusses the importance of self-concept at great length. The hypothesis of the monograph is that an individual's self-concept is a summary of the individual and serves as a moderator of his/her functioning. Fitts believes that an individual's concept of him/herself condenses and captures the essence of many other variables including motives, needs, attitudes, values and personality (Fitts, 1971).

There are several other personality and self theories (e.g. social identity theory and self presentation theory) that assert the importance of self-concept or components of self-concept as an integral part of human behavior and behavior change. Regardless of the theory, all are fundamentally rooted in the concept of the self.

Career Development Theories

As early as 1943, the idea that expressions of interest were manifestations of self-concept was put forth by Bordin (Bordin, 1990). The related conjecture that self-concept was related to career development was then originally outlined by Ginzberg, Ginsburg, Axelrad, and Herma (1951) and more fully elaborated upon by Super (1953).

The connection between self-concept and career choice and development was first made when Bordin reconciled trait and factor theory with self-concept ideas from Rogers and presented the idea that an individual's interests are really manifestations of their self-concept (Bordin, 1990). Bordin suggested that an individuals response to an interest inventory is actually that individual expressing their concept of self in occupational terms.

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In 1951 Ginzberg, Ginzberg, Axelrad and Herma presented a radical new theory of career development which was psychologically based and posited that career development was developmental. This new theory broke with the static trait and factor theory of occupational choice and their introduction of the idea that career choice occurs developmentally stands as a landmark contribution to the area of career choice and development (Brown, Brooks and Associates, 1990).

However, it was Donald Super (1953) who was to more fully elaborate on the theories of Bordin (1943) and Ginzberg, Ginzberg, Axelrad and Herma (1951) and combine the importance of self-concept with the idea that career choice is a developmental process into one theory of career development. Super (1990) describes his own theory as being one that is a "loosely unified set of theories dealing with specific aspects of career development, taken from developmental, differential, social, personality, and phenomenological psychology and held together by self-concept and learning theory" (p.199).

Several of Super's propositions directly address the importance of self-concept in career choice and career development. In summary, these propositions state that: 1) development through life stages can be guided by facilitating self-concepts; 2) the process of career development is essentially one of developing and implementing self-concepts; 3) work and life satisfactions depend on the extent to which the individual finds adequate outlets for abilities, interests, needs, values, personality traits and self-concepts; and 4) the degree of satisfaction that an individual derives from work is proportional to the degree to which they have been able to implement self-concepts (Super, 1990).

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Social Learning Approach to Career Development : Another career development theory which is related to self-efficacy but slightly different than the theories presented above, is the social learning approach to career decision making (Krumboltz, 1979; Krumboltz, Mitchell, and Jones, 1976). It was Krumboltz and colleagues who provided the initial effort to tailor Bandura's general model to the career domain (Hackett & Lent, 1992). This theory recognizes humans as intelligent, problem-solving individuals and posits that four categories of factors influence the career decision-making path of any individual: 1) genetic endowment and special abilities; 2) environmental conditions and events; 3) learning experiences, and 4) task approach skills (Mitchell & Krumboltz 1990). In addition, the theory states that an individual's beliefs about him/herself and about the world of work influence their approach to learning new skills and ultimately affect their aspirations and behaviors. Self-observations regarding one's own skills, task efficacy and their own performance according to their own standards or with regard to the skills and attitudes of others all influence interests and behaviors (Mitchell & Krumboltz 1990).

Components of Self-Concept

Several researchers and theorists agree that the self-concept is a broad construct which encompasses several components (Blascovich & Tomaka, 1991; Fitts, 1965; Fitts, Adams, Radford, Richard, Thomas, Thomas, & Thompson, 1971; Rosenberg, 1979; Wylie, 1974). It is also agreed by many that three of the main components of self-concept include: 1) cognitions (self-efficacy), 2) affect or emotions (self-esteem) and 3) behaviors.

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Cognitions (Self-efficacy). Self-efficacy theory and the concept of "self-efficacy" was first introduced by Bandura (1977). According to Bandura (1982) self-efficacy refers to the individual's confidence that s/he can achieve certain levels of performance. Self-efficacy theory draws on both behavioral and cognitive concepts and is based on the assumption that cognitive processes can mediate behavioral change (Strausser, 1995). In Bandura's recasting of social cognitive theory (1986) he ascribes a central role to 'self-efficacy beliefs' in guiding important aspects of psychosocial functioning (Hackett & Lent, 1992).

The Rational-Emotive Approach to counseling (Ellis, 1957) also has as a key component, cognitions. According to Ellis (1979), Rational-Emotive Therapy (RET) holds that an individual's emotions and behaviors are significantly affected by the kinds of things they tell themselves (cognitions), and that depending on the set of statements they tell themselves, their feelings and actions can change significantly (Ellis, 1979).

Affect or Emotions (Self-Esteem). Self-esteem is a popular and important construct in the social and behavioral sciences, and in everyday life (Blascovich & Tomaka, 1991). The dictionary defines self-esteem as how much an individual prizes or takes pride in him/herself (Guralnik, 1980); "To esteem a thing is to prize it, to set a high mental valuation upon it; when applied to persons, esteem carries also the warmer interest of approval, cordiality, and affection" (Williams, 1979, p. 309; as cited in Blascovich & Tomaka, 1991, p115). Although the concept of self-esteem goes by a variety of names (e.g. self-worth, self-regard, self-acceptance) each is compatible with the definition of self-esteem described above.

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According to Blascovich & Tomaka (1991), self-esteem is the overall affective evaluation of one's own self worth, importance or value; and is the evaluative component of the broader representation of the self, the self-concept. Consequently, cognitions about the self (contained in the self-concept) may or may not influence self-esteem (Blascovich & Tomaka, 1991; Rosenberg, Schooler, Schoenbach & Rosenberg, 1995). Whether or not self-esteem is influenced by cognitions is partially dependent upon how much the individual values that specific area of self-esteem being evaluated (Rosenberg, Schooler, Schoenbach & Rosenberg, 1995). An example of how these constructs influence one another is provided by Blascovich and Tomaka (1991):

"...believing that one is a terrible singer may be a part of one's self-concept but may not bear any relation to one's feelings of self-worth. Feeling mildly or severely depressed because one cannot sing, however, is a matter of self-esteem, as is the behavioral consequence of jumping off the roof of an 18-story building to end one's humiliation over this deficiency." (p.115).

Behaviors. Hypothesizing that self-concept influences job seeking and employment outcomes for persons with disabilities requires the assumption that there is a relationship between self-concept and behavioral outcomes. Both self-efficacy theory and self-attribution theory offer reasons for expecting strong relationships between self-concept and behavioral outcomes. Bandura (1982) identified several reasons why perceived self-efficacy tends to enhance performance outcomes. He believes one reason for perceived self-efficacy to result in successful performance is that self-judged efficacy determines the amount of effort an individual will spend and how long they will persist in

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the face of obstacles and aversive experiences (Rosenberg, Schooler, Schoenbach & Rosenberg, 1995). Bandura describes self-efficacy as a dynamic aspect of the self system, and posits that accurate and strong self efficacy expectations are crucial to the initiation and persistence of behavior in all areas of functioning (Hackett & Lent, 1992).

In addition, a review of the personality and self theories presented earlier in this chapter reveal that essentially every theory presented postulates that self-concept or components related to self-concept influence or determine behavior.

Specific vs. Global Self-Concept. Many authors distinguish between global and specific areas of self-esteem or self-concept (Hoelter, 1986; Rosenberg, 1979; Rosenberg, Schooler, Schoenbach & Rosenberg, 1995). Rosenberg, Schooler, Schoenbach & Rosenberg (1995) indicate that global self-esteem is an individual's positive or negative attitude toward the self as a totality, and that specific self-esteem is an attitude toward a facet of the self (e.g. academic). In general, many researchers believe that global self-esteem is most related to psychological well-being and specific self-esteem is more relevant to behavior (Rosenberg, Schooler, Schoenbach & Rosenberg, 1995; Rosenberg, 1979; Hoelter, 1986; Marsh, 1986). Although global and specific evaluations of the self are related, they are not interchangeable (Marsh, 1986). Rosenberg and associates (1979; 1995) posit that it is easier to influence or change specific areas of self-esteem or self-concept than global evaluations of the self; and that increases in one or more areas of specific self-esteem can result in an increase in global or overall self-esteem/self-concept. However, it should be noted that specific and global self-esteem/self-concept may each mediate the effect of the other (Rosenberg, Schooler, Schoenbach & Rosenberg, 1995).

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Employment Status of Persons with Disabilities

"Work is a central force in peoples lives" (Hershenson & Szymanski, 1992, p.273). According to Hershenson and Szymanski (1992), an occupation not only provides financial support; but also reflects an individual's self-concept. Several studies have shown that unemployment is associated with lower self-concept/self-esteem (Fitts & Warren, 1996; Sheeran, Abrahms & Orbell, 1995; Sheeran & McCarthy, 1990) and increased depression (Feather & O'Brien, 1986). In a recent attempt to estimate the relation between unemployment and self-esteem, Goldsmith, Veum & Darity (1997) concluded "We find clear evidence that having recently completed a spell of joblessness, due either to unemployment or time spent out of the labor force, damages an individual's perception of self-worth...and significantly harms self-esteem" (p.183). Therefore, given the rate of the unemployment among persons with disabilities, the issue of self-concept/self-esteem becomes increasingly important.

The rate of employment for persons with disabilities is significantly lower than for persons who do not have a disability. According to the Bureau of the Census (1987, as cited in Satcher & Hendren, 1993), only 33.6% of the 13.3 million persons with disabilities of working age in the United States were participating in the labor force as compared to 78% of those without a disability (Satcher & Hendron, 1993). A recent survey of Americans with disabilities indicated that two thirds of working age Americans with disabilities were unemployed, even though 79% stated that they were interested in working (Taylor, 1994 as cited in Szymanski & Parker, 1996). Although employment

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opportunities for persons with disabilities have increased somewhat, the unemployment rate for these individuals remains quite high at 67% (Louis Harris and Associates, 1995, as cited in Fesko & Temlini 1997).

The high unemployment rate for individuals with disabilities not only has a negative impact on their economic situation, but also in their healthcare. Fewer employed individuals with disabilities are covered by employer-sponsored health plans as compared to employed individuals who do not have a disability (Vandergoot, Staniszewksi, & Merlo, 1992). A recent study by Fesko & Temlini (1997) indicate that the employment situation for persons with disabilities remains troublesome. In a survey of consumers who received services from community based rehabilitation programs or independent living centers across 20 states; 50% worked 25 hours a week or less, 58% of consumers did not receive paid vacation time, 68% did not receive paid sick time and 71% did not receive health insurance (Fesko & Temlini, 1997).

Unfortunately individuals with disabilities are much more likely to be unemployed than persons who do not have a disability. Consequently this rate of unemployment for persons with disabilities adversely effects not only their financial and social status, but also their concept of themselves (Hershenson & Szymanski, 1992).

Employment Outcomes of the Public Rehabilitation Agency

Assisting persons with disabilities to obtain and maintain employment is of primary importance to vocational rehabilitation service delivery systems and the rehabilitation counseling professionals who deliver those services. The centrality of the

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employment outcome to the rehabilitation counseling profession and to the role of the rehabilitation counseling professional has been both evident and demonstrable since the first studies of the role and functions of the rehabilitation counselor (see Jacques, 1959).

Since its inception, the primary purpose of the public vocational rehabilitation program, and goal of service delivery has been to assist persons with disabilities to become employed (Bolton, 1987; Rubin & Roessler, 1995). The importance of employment as an outcome specifically within the public rehabilitation program has been consistently underscored by various pieces of legislation since the program was legislatively mandated in 1920. The importance of employment outcome was again reiterated most recently by the Rehabilitation Act Amendments of 1992, where the priority on employment outcomes for persons with disabilities was re-emphasized (Rubin & Roessler, 1995).

An assessment of rehabilitation program evaluation needs of public rehabilitation programs by Crystal (1979) revealed several recurrent issues which emerged; two of these were the need for "...[1] studies to show the relative effectiveness of contrasting service delivery methods and [2] studies to determine the impact of services on different disability groups" (p. 393).

Despite the public rehabilitation programs' focus on employment outcome and the continuous reinforcing legislation; the public vocational rehabilitation agency has been increasingly criticized by consumers, disability advocates, legislators and many others for inadequate employment outcomes for persons with disabilities. In a study evaluating the outcomes of the public rehabilitation program, the Unites States General Accounting

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Office concluded "We found that ... those who do take part in the program receive, on the average, only modest services. The long term results are also modest" (1993, p. 1).

Although one could argue that the data used are not valid and representative of actual service provision and outcomes, considering the source of the data used and possible errors; the need to improve employment outcomes for persons with disabilities and accurately measure these outcomes remains. Regardless of the data used, employment rates for persons with disabilities are persistently disappointing (Millington, Reid, & Leierer, 1997).

After evaluating the public rehabilitation programs' outcomes in 1993, the United States General Accounting Office concluded that the evidence regarding employment outcomes was mixed. In addition, their analysis suggested that gains in economic status may be temporary (1993). These conclusions regarding program outcomes are crucial because the existence of the public rehabilitation program is justified legislatively as being a good investment of taxpayers money (Bolton, 1987; GAO, 1993; Rubin & Roessler, 1995). The justification is an economic one; citing that for every $1 spent on rehabilitation services, more than $1 is returned to the economy, since the newly employed individual now pays taxes and there is a possibility of reduction or discontinuation of public financial support (Bolton, 1987; Rubin & Roessler, 1995). In some cases, those using the economic argument regarding benefit-to-cost ratio have estimated that in excess of $10 is returned to the economy for every $1 spent (Bolton, 1987). Consequently, poor employment outcomes and only temporary economic gains for those who do become employed, could be devastating to both the public vocational

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Identifying strategies and effective methods which will increase the quantity and quality of employment outcomes for individuals served by the public rehabilitation program is imperative. "Demonstrating professional efficacy in the vocational domain is essential because there is little legislative rationale or market demand for the existence of rehabilitation counseling as a profession without vocational outcomes" (Millington, Reid & Leierer, 1997, p.215). Developing and identifying effective rehabilitation strategies which facilitate, increase and improve employment outcomes is of critical importance to achieving this essential rehabilitation objective.

Impact of Self-Concept on Job Seeking and Employment for Persons with Disabilities

A number of studies have been conducted linking self-concept and/or components of self-concept (e.g. self-esteem) to both rehabilitation outcomes and to work behaviors and attitudes. The organizational behavior literature has devoted considerable attention to the construct of self-esteem (Ellis & Taylor, 1983). Research in this area has shown that self-esteem is related to both work behaviors and attitudes (e.g. job satisfaction, organizational satisfaction and job performance) (Korman, 1976; Tharenou, 1979). In the rehabilitation literature, a positive relationship between successful rehabilitation and self-concept has been demonstrated by several researchers (Bolton, 1976; Hobart & Walker, 1973; McGuffie, Janzen, Samuelson, and McPhee, 1969) and Hobart and Walker (1973) found it (self-concept) to be the most effective single predictor of rehabilitation outcomes for disadvantaged clients. In addition, improvement in self esteem (a

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component of self-concept) in specific areas (i.e. job seeking and employment) is an effective predictor of behavior (Ellis & Taylor, 1983; Roid & Fitts, 1988).

In the organizational behavior literature, several researchers have demonstrated the important of self-concept/self-esteem to work behaviors, work attitudes, job satisfaction, and work performance (Ellis & Taylor, 1983). In his theory of organizational behavior, Korman emphasized the role of self-esteem in work outcomes (1970) and in vocational choice (1966). In his studies, Korman found evidence that task specific self-esteem predicted performance, and viewed self-esteem as a moderator of the relationship between performance and satisfaction (Greenhaus & Badin, 1974). Several researchers have also found relationships between self-concept/self-esteem and organizational satisfaction (Korman, 1976; Tharenou, 1979) and satisfaction with occupational choice (Holland, 1953; Super, 1966).

Despite the large amount of research that has been conducted relating self-concept and components of self-concept to job seeking skills, work behaviors and rehabilitation outcomes; the area of the job search process has largely been ignored (Ellis & Taylor, 1983). In addition, research intended to examine a causal relationship regarding self-concept has also largely been untouched. By designing and implementing a method of improving client self-concept in the area of job seeking and employment, it would be possible to effect behaviors and subsequently rehabilitation outcomes.

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Factors influencing Self-Concept. Traditionally, the construct of self-concept has been considered to be very static and difficult to change. It was this view of self-concept that presented a major barrier to linking self-concept to behavior (Leonard, Beauvais & Scholl, 1995). However, dramatic advances within the past decade have been made in the area of research on self-concept and on its structure and content, and indicate that some parts are less salient than others (Leonard, Beauvais, & Scholl, 1995).

In addition to occupational status, age also influences self-concept (Thompson, 1972; Fitts and Warrn, 1996). Specifically, adults tend to score lower on physical, self-criticism, and conflict self-concept, moral family, social and academic/work scales (Fitts & Warren, 1996). Elderly individuals (age 60-90) tend to score slightly lower on academic/work, self-criticism and physical self-concept scales than other adult groups (Fitts & Warren, 1996). These self-concept scores for these age groups seem to be logically related to the life stage and factors associated with each life stage that the individual is experiencing. Other variables such as gender and ethnicity do not seem to be significantly related to self-concept (Fitts & Warren, 1996).

Several skills are associated with self-concept. It is generally believed that the individual's concept of him/herself emerges, at least in part, from social interactions (James, 1963; Fitts & Richard, 1971) and that these interactions are powerful determinants of self-esteem/self-concept (Lorr & Wunderlich, 1986).

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of affection and good interpersonal communication were all positively associated with self-concept. In addition, Thompson (1972) found that self-disclosure and interpersonal skills had a positive effect in self-concept change.

Factors Influencing Job Seeking, Employment and Rehabilitation Outcomes

A number of studies have been done linking self-esteem/self-concept to rehabilitation outcomes. A positive relationship between successful rehabilitation and self-concept has been demonstrated by several researchers (Bolton, 1976; Hobart & Walker, 1973; MacGuffie, Janzen, Samuelson, and McPhee, 1969). In addition, Hobart & Walker (1973) found that self-concept was the most effective single predictor of rehabilitation outcome for disadvantaged clients.

Kaplan and Questad (1980) note that based on the available research, hypothesizing that efforts to improve client self-concept would result in more successful outcomes, seems warranted; and, that empirical research to determine the validity of this assertion is needed. The need to explore this hypothesis is also supported by Garske and Thomas (1992) who conclude, based on their study of self-esteem and rehabilitation outcomes, that "...it would seem important to provide interventions that could exert a positive influence on the development of self-esteem" (p.50).

It would seem logical that to improve client self-concept in the area of employment, teaching skills important to obtaining and maintaining employment would be essential. Several variables are related to successful employment outcomes. Farley & Schriner (1997) found that the following were related to the acquisition of employment

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for persons with disabilities: (1) Improved presentation of self on job application forms; (2) Improved performance on a variety of job interview behaviors; and (3) Successful completion of specific occupational tasks. Hollandsworth, Glazeski & Dressel (1978) indicated that the job interview is perhaps the single most important selection tool used by an employer in making an employment decision. A study by Von der Embse & Wyse (1985) also found that, although the interview has the most dubious validity for selecting employees, it was the selection tool rated as most valuable by personnel managers.

Intervention Strategies for Improving Employment Self-Concept of Persons with Disabilities

Rational-Emotive Approach. When considering an appropriate method to simultaneously teach job seeking skills and improve self-concept; it seems apparent that a method that takes into consideration the components and structure of self-concept (cognitions, affect and behaviors) would be most effective. Consequently, it was determined that a Rational-Emotive approach (Ellis, 1957) utilizing cognitive, emotive and behavioral methods was consistent with the construct of self-concept, and would therefore be the most effective approach to bring about change in clients' self-concept. This approach consciously and comprehensively employs cognitive, emotive and behavioral methods. An emphasis of the R.E.T. approach (Ellis, 1979) and also of the intervention is the interaction of thoughts, feelings and actions. R.E.T. emphasizes that a significant change in one major cognition can bring about many important changes in several emotions or behaviors (Ellis 1979).

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The use of Ellis' approach in the field of rehabilitation was recently discussed by Strausser (1995). Strausser (1995) indicates that because of the central tenets of the approach - that cognitive processes can mediate change, and the experience of mastery arising from effective performance can alter cognitions; that this approach is appropriate for all phases of rehabilitation counseling practice.

Group Format. The use of a group format has been discussed and strongly recommended by Rogers (1970). Rogers (1970) indicates that all elements necessary for change can be provided in a group format: "the building of trust in small groups, the sharing of self, the feedback, the sense of community" and that the group experience facilitates a change in behavior. This group experience is not confined to "therapy" groups; Rogers (1970) indicates that group training can create changes in an individual's ability to manage feelings, directionality of motivation, attitudes toward the self (including self-concept/self-esteem, and confidence), attitudes toward others and interdependence.

Skills Training. Based on the literature several skill areas would be appropriate for inclusion in an intervention designed to improve employment self-concept and self-concept in general. Among these skills are: interview, job seeking, communication, social, problem solving and decision making.

Homework. The use of between session tasks (homework) can enhance rehabilitation goals and outcomes (Randolph & Zerega, 1974). According to Randolph and Zerega (1974), "Homework...enables the client to actively practice behaviors and examine issues from previous...sessions" (p.73). When incorporating assigned homework

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into a counseling strategy, Randolph and Zerega (1974) recommend that: 1) the tasks of the assigned homework should be based on issues dealt with in the session, 2) the homework is mutually agreed to by both the client and counselor, and 3) the completion of the assignment is acknowledged and valuable for the next session. According to Randolph and Zerega (1974), when homework is used and structured in this way, it can assist the client in actively practicing behaviors and examining relevant issues between sessions.

In summary, this review of literature has shown the importance of self-concept in relation to personality development, career development, job seeking skills and employment outcomes. The literature has established that a relationship between an individuals self-concept and his/her behaviors exists; and that self-concept may be the single most effective predictor of rehabilitation outcomes.

Although a significant amount of research has been done in a variety of areas (e.g., psychology, organizational behavior, rehabilitation) regarding the role of self-concept; very little has been done in the area of developing and identifying strategies to improve self-concept in persons with disabilities. In addition, research intended to examine a causal relationship between self-concept and rehabilitation outcomes has been generally left untouched.

The basis for the present study was established by knowledge generated in the areas of self-concept theory, career development theory, organizational behavior, and rehabilitation outcomes. The review of this literature has identified the urgent need to develop and identify strategies to facilitate, increase and improve employment outcomes

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for persons with disabilities. The importance of self-concept and the role of self-concept in employment outcomes has been shown; and the need for specifically conducting process research regarding this variable has been established. Studies of this nature (i.e. examining processes) are required in order to establish a foundation for examining causal relationships in future research. By conducting process research regarding self-concept and strategies for improvement; it is hoped that a follow up study examining employment outcomes of these same subjects will establish a causal relationship between self-concept and employment. Thus, making significant progress in identifying strategies to improve employment outcomes for persons with disabilities.

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CHAPTER 3

METHODOLOGY

The purpose of this study was to determine if participation in the CLEO (Comprehensive Labor and Employment Opportunities) Program has a positive effect on client self-concept. It was hypothesized that participation in the CLEO program would improve client self-concept specifically in the area of employment and also result in an improvement in clients' total or overall self-concept. It was hoped that this study would provide information regarding self-concept and self-concept change in persons with disabilities, with the ultimate goal of identifying and developing rehabilitation strategies which are effective in facilitating, increasing and improving employment outcomes for persons with disabilities. This chapter provides information regarding subjects, content of the intervention, instrumentation, procedures and data analysis utilized in this study. The research questions were as follows:

1) Is there a positive change in clients' employment self-concept after participating in the CLEO Program, as measured by pre and post treatment measures of the Tennessee Self-concept Scale Academic/Work Score?

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2) Is there a positive change in clients' overall self concept after participating in the CLEO Program, as measured by pre and post treatment measures of the Tennessee Self-concept Scale Total Self-Concept Score?

3) Is there a difference in growth between the treatment and control groups on employment self-concept as measured by the difference between pre and post measures of the Tennessee Self-Concept Scale (Second Edition) Academic/Work self-concept scale?

4) Is there a difference in growth between the treatment and control groups on overall self-concept as measured by the difference in pre and post measures of the Tennessee Self Concept Scale (Second Edition) Total Self-Concept Score?

To address the above questions, the present study was designed to evaluate the nature of the following null hypotheses:

1) There will be no change in client employment self-concept scores as a result of participating in the CLEO program as measured by the change in the pre and post measures of the Tennessee Self-concept Scale Academic/Work Score.

2) There will be no change in client overall self-concept scores as a result of participating in the CLEO program, as measured by the change in the pre and post measures of the Tennessee Self-concept Scale Total Self-concept Score.

3) There will be no difference in the growth between the treatment and control groups on employment self-concept as measured by the difference between pre and post measures of the Tennessee Self-Concept Scale (Second Edition) Academic/Work self-concept scale.

4) There will be no difference in the growth between the treatment and control groups on Total self-concept as measured by the difference between pre and post measures of the Tennessee Self-Concept Scale (Second Edition) Total self-concept score.

Subjects

Description of Sample

The desired sample for this study consisted of volunteers solicited from individuals who applied for services and attended an orientation meeting at Michigan Jobs Commission - Rehabilitation Services (MJC-RS). Michigan Jobs Commission - Rehabilitation Services is the public rehabilitation program in Michigan, and has 35

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district offices across the state. MJC-RS serves approximately 40,000 individuals with disabilities per year; serving 40,356 individuals in Fiscal Year 1997 (T. Rousseau - Client Data Systems Analyst, personal communication, January 16, 1998). MJC-RS is a publicly funded agency that serves individuals with all types of disabilities (with the exception of legal blindness) who wish to obtain and maintain employment. Persons who are legally blind are served by the Commission for the Blind and are referred to that agency for assistance.

Each district office provides an orientation for individuals who are interested in applying for services. The orientation is provided either individually or in groups and typically consists of a review of services and eligibility criteria, and a meeting or interview with a staff member. The staff member assists in the completion of the application for services and obtains necessary releases to obtain additional information. During this meeting, specific services and procedures more directly related to the individual applicant and their situation are reviewed and discussed.

Individuals who attend the orientation meetings at MJC-RS and who are subsequently determined eligible for services are those who have a disability which imposes a barrier to the individuals' ability to obtain and maintain employment successfully. Once eligibility is determined (see Appendix A), a variety of services can be provided to the individual depending on individual circumstances. These services are provided in order to remove barriers imposed by the disability and to assist the individual in successfully obtaining and maintaining employment. Services purchased and/or provided by the public vocational rehabilitation agency can include, but are not limited

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to: medical, psychological and vocational assessment, career and vocational exploration, training and education, adaptive equipment, job placement and follow up services. Individuals who attend orientation meetings represent a cross section of disability groups and gender. (Refer to Appendix A for additional information regarding funding, eligibility criteria, services provided, and individuals served)

The sample for this study consisted of volunteers solicited from persons attending orientation at three different district offices of MJC-RS. The treatment group consisted of individuals attending the treatment district office orientation and who volunteered to participate in the CLEO (Comprehensive Labor and Employment Opportunities) program, and to complete pre and post measures of the Tennessee Self-Concept Scale (second edition).

Two groups of volunteers who completed the pre and post measures of the Tennessee Self-concept Scale (Second Edition) but did not participate in the CLEO program were used for comparison purposes. These individuals were solicited from a group of individuals attending orientation at two different public vocational rehabilitation offices in the same state (neither of which provided the treatment program). Selection of the location of one of the district offices for purposes of control was based on its' similarity to the treatment group district office in regard to: Number of individual served, number and types of case closures, and gender and disability composition of clients. In addition, it was possible for some subjects in this control group to receive services through special programs in addition to basic rehabilitation services (e.g. World of Work and Adjustment to Disability classes). Selection of the location of the second control

group was based on the fact that individuals served in this office receive the basic individual rehabilitation services provided by all district offices in the State of Michigan, but would not participate in programs which would be similar to the treatment program (see Appendix B for summary of demographic information for treatment and control group locations).

Sampling Procedure

A power analysis (Cohen, 1988) using an alpha level of .05, power of .80, R^2 of .12, effect size of .35 and 3 predictor variables (Total self-concept pretest score and Academic/Work self-concept pretest score) revealed the need for a minimum of 84 subjects (the number of predictor variables included variables added to take into consideration additional covariates and for the purposes of post hoc analyses). In order to compensate for the effects of attrition on our sample, an additional number of subjects were recruited for this study. Accordingly, the desired sample size for this study was 110 (55 for treatment and 55 for control).

Subjects were selected from individuals attending orientation at three different district offices (one treatment group and two control groups) of a public rehabilitation program in Michigan. During each orientation program at the treatment site, the CLEO program was introduced and explained to all applicants, and volunteers to participate in the program were solicited (see Appendix C for script) from individuals in attendance. During orientation at each of the control sites, individuals were asked to participate in assisting in evaluating the effectiveness of a program at another district office by

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volunteering to take the pre and post measures of the Tennessee Self-Concept Scale (second edition) (see Appendix D for script). Due to the fact that the TSCS:2 was administered at three separate sites by three different administrators, a specific script for administration was developed to assure consistency of instrument administration across sites (see Appendix D for script). Data were collected from January 27, 1998 through June 25, 1998.

Intervention

Intervention Development

The process of developing the content, structure and curricula of the intervention was first initiated by a computer and subsequent manual search and review of several areas of published research. In addition, professionals in many of these areas were also consulted.

Research in the areas of education, learning, instruction and curriculum design was consulted for the purposes of determining the intervention structure (e.g. number of weeks) and session structure (e.g. research on attention span and learning to determine length of time spent on material presentation per session). Research in these areas was also used to inform the selection of teaching tools (e.g. group activities) and other aspects important to include in order to enhance learning (e.g. the inclusion of homework each week).

Topic areas and content addressed in the CLEO Program was determined through review of literature in several areas including: personality theory, self-concept and

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self-concept change, self-efficacy, self-esteem, organizational behavior, special education, career development, rehabilitation counseling, counseling theory and behavior change. Content within each topic area was further informed by literature and research specifically related to the particular topic area in relation to the target population (persons with disabilities). The selection of topic areas and session content was specifically determined by identifying the following in above mentioned areas of research and literature: 1) Skills and abilities related to obtaining and maintaining employment that employers look for in an employee; 2) Skills and abilities related to obtaining and maintaining employment that persons with disabilities generally need to obtain or improve upon; 3) Skills and abilities related to self-concept that persons with disabilities generally need to improve upon, and 4) Skills and abilities that are related to both employment and self-concept. Once these were identified, additional skill areas related to self-concept and which could have an impact on job seeking and employment (e.g. social skills) were merged into the curriculum. An attempt was made to identify and focus on skills and topic areas related to both self-concept (including self-efficacy and self-esteem) and employment skills (e.g. problem solving skills).

Methods to most effectively present and teach each topic were then developed by consulting the several areas of research including: education, special education, teaching and instruction, and rehabilitation literature; while taking into consideration the target population and the need for an approach appropriate for various levels of functioning. Information from the behavior change literature and related research was then used to provide a final frame for all skill areas (e.g. the "Think, Feel, Do" approach).

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Intervention Structure and Content

The intervention was nine weeks (18 hours) in length, which was split into two phases. After volunteers in the treatment group had been given information regarding the nature and purpose of the study, signed consent forms, and filled out the initial instruments on the day of orientation, they were scheduled for both Phase I and Phase II of the treatment program, and given a reminder flyer about the program and scheduled dates (See Appendix E for flyer). Both phases of the treatment program took place at the public rehabilitation district office during regular business hours. Each phase was conducted in a group format with the instructor of both phases being a person with a disability. The treatment program was structured utilizing a psychoeducational model with a cognitive behavioral approach. Within one week of volunteering for the program, each participant was sent a letter from the instructor and researcher welcoming them to the program and reminding them of the date, time and location of the Phase I they were scheduled to attend. A second similar reminder letter regarding the dates, time and location of Phase II was also sent one week prior to the beginning of the Phase II session the individual was scheduled to attend (see Appendix F for letters). Individuals began attending Phase I approximately 8-14 days after their orientation date, and began Phase II anywhere from 18 days, to immediately after completion of Phase I. A certificate of completion was given to each individual for completion of each phase; once at the end of the 6 hour Phase I and again after completing the entire program.

Phase I (Week 1). The first phase of the treatment consisted of a 6 hour intensive program which took place for two hours on three consecutive days. Phase I briefly addressed: communication skills, basic human rights, decision-making, responsibility/self-determination, and self-concept.

Phase I Materials. Each participant was given a manual which contained notes, information and worksheets for each area addressed in Phase I. The Phase I manual was for the participants' use and reference, and was not seen by anyone unless the participant chose. Phase I was designed to let participants become familiar and somewhat comfortable with the content areas, group processes, and with sharing their own experiences.

Phase II (Weeks 2-9). The second phase of the treatment took place 0-18 days after Phase I has been completed. Phase II was also conducted in a group setting with an average of 15 participants. The Phase II group met once a week for an hour and a half over a period of 8 weeks.

Phase II Topic Areas:

Week 2:	Program Introduction Communication Skills
Week 3:	Communication Skills
Week 4:	Problem Solving Skills
Week 5:	Problem Solving Skills Social Skills
Week 6:	Social Skills
Week 7:	Job Seeking Skills

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Week 8: Interview Skills

Week 9: Course Review and Closure
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Phase II Session Structure. Each session was 1 ½ hours in length. With the exception of the first session, the first 15-20 minutes of each weekly session was spent on review and discussion of the previous weeks' topic. Specifically, individuals had the opportunity to discuss and problem solve with the group in regard to how individuals were able to implement skills taught and discussed in previous sessions, and difficulties or challenges they may have encountered regarding the particular skill area. The first 15-20 minutes of the first session was spent on group introductions and getting acquainted.

Following the 15-20 minutes of review, (or introductions in the first session), the following 30 minutes were used to present material on the topic area for that particular week.

After the material presentation, participants had 30 minutes for role play, paper and pencil exercises and hands on experience in order to learn how to apply the concepts and skills associated with the topic area. An additional ten minutes was allowed for either material presentation or hands on exercises, as needed. During the last group session (Week 9) this last 30 minute block of time was used for the purposes of review, closure, and administration of the TSCS:2 and program evaluation forms (see Appendix G for forms).

Homework was assigned each week. Each participant was expected to apply each concept and skill area in each of five life areas: 1) Intimate relationships, 2) Family life, 3) Friends, 4) Employment, and 5) Community. The homework consisted of different tasks which required the individual to apply the skills learned up to that point, either by written homework, or through actual tasks they must try to accomplish. Individuals participated in determining their goals and homework for each week. Homework was discussed but not turned in to instructors unless an individual requested additional feedback. An attendance record was kept for both Phase I and Phase II of the CLEO program.

Phase II Materials. A manual was provided to each participant in phase II which included notes and information regarding each topic area. In addition, each manual contained worksheets, homework and pages for notes. The phase II manual was designed for participant use only and was not to be shared unless the participant chose.

Instructor Materials. A manual was also provided to the instructor which contained both Participant Manual I and Participant Manual II. Instructor directions and additional information for group discussions, homework and material presentations was provided in the Instructors Manual.

Instrumentation

Measuring the impact of the treatment program required the use of research instruments designed to measure the self-concept of persons with disabilities. An extensive review of the literature was undertaken in order to identify measures which

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were appropriate for measuring self-concept and related variables; and which were also appropriate for persons with a variety of disabilities (e.g. mental illness, developmental disabilities) which may affect their test scores.

The process of identifying appropriate instruments for measuring self-concept was initiated by first conducting a computer search and subsequent manual search of the past 50 years of the most predominant journals in the areas of psychology and rehabilitation (e.g.,Behavior Therapy, Cognitive Therapy and Research, Journal of Applied Psychology, Journal of Applied Rehabilitation Counseling, Journal of Consulting and Clinical Psychology, Journal of Vocational Behavior, Rehabilitation Counseling Bulletin, Vocational Guidance Quarterly).

A number of articles were identified during this process which utilized a variety of instruments to measure self-concept and related concepts. Further information regarding these instruments was then gathered by consulting resources specializing in research instruments (e.g., The Mental Measurements Yearbooks, Measures of Personality and Social Psychological Attitudes, The Buros Institute of Mental Measurements internet location) to determine appropriateness for administering to a population which may have included persons with low reading ability or similar disability issues; and for measuring self-concept as this study has defined it. Copies of instruments which met the above criteria were then obtained through either personal contacts or from published sources that included the entire instrument. In addition, discussions with rehabilitation and psychology professionals, and a review of several dissertations and monographs took place to select instruments most appropriate for measuring self-concept

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within the target population of persons with disabilities. These instruments were narrowed down to several excellent instruments (e.g. Rosenberg Self Esteem Scale, The Coopersmith Self-Esteem Inventory, The Tennessee Self-concept Scale). The selection of the Tennessee Self-Concept Scale (see Appendix H), originally introduced by Fitts (1965) was made only after the careful consideration outlined above. The following aspects of the Tennessee Self-concept Scale (second edition) (TSCS:2) were all factors in the instrument selection decision: 1) The instruments' excellent psychometric properties; 2) suitability for use with individuals with low reading levels (e.g. third grade); 3) suitability for use across a full range of psychological adjustment (Archambault, 1992); 4) the scale is based on a multidimensional view of self-concept which is derived essentially from a clinical perspective and emphasizes both general and specific factors (Blascovich & Tomaka, 1992) which is consistent with the definition of self-concept in this study; and 5) the instrument includes a specific self-concept scale related to work (Fitts & Warren, 1996). The Total score on the TSCS:2 was selected as a primary measure due to the fact that it correlates highly with several other measures of self-concept and components of self-concept (e.g. Coopersmiths' Global Self-Esteem, Janis-Fields' Social self-esteem) (Fitts & Warren, 1996). The Academic/Work scale was an important aspect of this instrument as the main focus of this study is self-concept in the area of work or employment. The Tennessee Self-Concept Scale is a carefully researched instrument which has been used extensively since the mid 1960's and is currently one of the most commonly used instruments for measuring self-concept and components of self-concept (e.g., self-esteem) (Archambault, F.X., Jr., 1992).

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Tennessee Self-Concept Scale (Adult Form)

The Tennessee Self-concept Scale (TSCS) is a popular measure of self-concept, and one of the most widely used of several standardized tests that measure self-concept and components of self-concept (Archambault, 1992; Koehler, 1989), which is by the authors as "Who I am" (Brown, 1998). This instrument is widely applicable, very carefully researched, and is appropriate for use with a variety of subjects and conditions (Archambault, F., Jr., 1992; Blascovich & Tomaka, 1991). The Tennessee Self-Concept Scale is suitable for use across the full range of psychological adjustment from mentally/emotionally healthy well-adjusted individuals to persons with disabilities involving psychosis (Archambault, 1992). This broad application of the TSCS made it especially appropriate for use with the population in this study - persons with disabilities.

Development of the Tennessee Self-Concept Scale.

The Tennessee Self-concept Scale was originally introduced by Fitts in 1965 and was developed for the purposes of providing a scale that was simple for the respondent to complete, was broadly applicable and to provide an instrument which was multidimensional in its description of the self-concept (Thompson, 1972, Fitts & Roid, 1988, Fitts & Warren, 1996). According to Fitts and Warren (1996), by the time it was revised in 1988 by Fitts and Roid, this scale was referenced in an average of 200 publications annually in a wide variety of fields including psychology, education, social science and the health sciences.

The most recent revision of the instrument was undertaken by Fitts and Warren in 1996. The Tennessee Self-concept Scale: Second Edition (TSCS:2) has been revised to

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provide an instrument that is easier for researchers and clinicians to use, while still maintaining the psychometric strengths of the instrument. In addition, inefficient and outdated items have been removed, an Academic/Work Self-Concept scale has been added and the TSCS:2 has been restandardized on a nationwide sample of over 3,000 individuals (Fitts & Warren, 1996).

The Adult Form of the TSCS:2 used in this study is standardized on 1,944 individuals between the ages of 13-90 and can be completed by individuals who read at the third grade level or higher and (Fitts & Warren, 1996). The instrument can be administered either individually or in groups and can be completed in 10 - 20 minutes, though it should be noted that there is no time limit for completing the instrument. The Adult Form consists of 82 items which are scored by the respondent on a likert type scale using five response categories - "Always False", "Mostly False", "Partly False and Partly True", "Mostly True", and "Always True".

There are two basic scores (Total Self-Concept and Conflict) and six Self-Concept Scales: Physical, Moral, Personal, Family, Social, and Academic/Work. There are four validity scores for examining response bias (Inconsistent Responding, Self-Criticism, Faking Good, and Response Distribution) and three Supplementary Scores (Identity, Satisfaction and Behavior) which involves combining items from scales in ways that reflect the original theoretical thrust of the test (Fitts & Warren, 1996).

Scoring of the instrument can take place in a variety of ways either by hand by the researcher, via computer disk purchased by the researcher, or mail-in scoring - a computerized scoring service provided by the test publisher, Western Psychological

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Services. Computerized and mail-in scoring reduces the potential for error in calculation and transfer of scores. Due to the fact that a complete interpretive report is provided for the mail-in scoring service, in addition to reducing potential error, this study utilized the mail-in scoring system. Processing of the mail-in Answer Sheets is completed and reports are generated and mailed the same day the publisher receives the answer sheets. The average total processing time of instruments beginning from when the researcher mails the information to the publisher and ending when the results and reports are received is 3 to 5 business days, making this system reasonable for the purposes of this study.

Psychometric Properties of the TSCS:2

Reliability. Test reliability involves determining the extent to which test results can be expected to remain consistent and stable (Isaac & Michael, 1995). According to Fitts & Warren (1996), the following reliability information applies to the second edition of the Tennessee Self-Concept Scale: 1) Internal consistency of the second edition (TSCS:2) was estimated by calculating Cronbach's alpha and range from .73 to .95 on the adult form with a median of .80; 2) Internal consistency estimates for Total Self-Concept and Academic/Work Self-Concept are .95 and .85 respectively; 3) Estimated test-retest reliabilities are .82 for Total Self-Concept and .76 for Academic/Work Self-Concept on the adult form. This instrument is a very well developed scale with much data to support its use (Brown, 1998). Given the most recent restandardization of the second edition of the TSCS, the retention of the most valid and reliable scales, the elimination of other

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scores with more questionable psychometric properties, and the large amount of data supporting the validity and reliability of the instrument, a Cronbach's alpha for internal consistency was not conducted.

Validity. The examination of validity involves evaluating the degree to which the test is capable of measuring what it purports to measure in a meaningful way (Fitts & Warren, 1996; Isaac & Michaels, 1995). The widespread use of this instrument in diverse settings has provided an accumulation of evidence for the validity of the scale as a measure of general self-concept as well as its multiple dimensions (Fitts & Warren, 1996). Content validity has been explored by using expert panels and self-descriptive items derived from written descriptions of patients and non-patients in several studies (Balester, 1956; Engel, 1956; and Taylor; 1953 as cited in Fitts & Warren, 1996). In the case of the new Academic/Work scale, an expert panel was used. Construct validity has been explored through various factor analytic studies verifying the multiple dimensions represented by the Self-Concept Scales and somewhat weaker support for the Satisfaction, Identity and Behavior scales (Fitts & Warren, 1996).

The most recent edition of the Tennessee Self-Concept Scale has been restandardized using 3,000 individuals ranging in age from 7 to 90, therefore addressing earlier criticisms of the instrument for having no 12 or 13 year olds and 1 fourteen year old (Archambault, 1992). The second edition has also been streamlined and updated. The adult form has been shortened from 100 items in the 1988 revision (Fitts & Roid, 1988) to 82 items in the 1996 edition, and the necessary reading ability lowered from 4th

to 3rd grade (Fitts & Warren, 1996). According to Fitts & Warren (1996), the items in the second edition have obtained scores psychometrically equivalent to the 1988 edition. In addition, in the TSCS:2, the 13 scores which proved most useful of the 34 scores in the 1988 revision were retained (Fitts & Warren, 1996); while other scores with more questionable psychometric properties and usefulness were deleted from the current edition of the instrument. Consequently, the TSCS:2 consists of 15 different scores. Figure 1 represent the structure of the instrument and the 15 scores represented.

Self-Concept Scales (6)

1. Academic/Work
2. Family
3. Moral
4. Personal
5. Physical
6. Social

Validity Scores (4)

1. Faking Good
2. Inconsistent Responding
3. Response Distribution
4. Self-Criticism

Supplementary Scores (3)

1. Behavior
2. Identity
3. Satisfaction

Summary Scores (2)

1. Total Self-Concept
2. Conflict

Figure 1 - Tennessee Self-Concept Scale: (Second Edition) scores.

Description of Scores

Validity Scores. The TSCS:2 has four validity scores for examining response bias: 1) Faking Good (FG), 2) Inconsistent Response (INC), 3) Response Distribution (RD), and 4) Self-Criticism (SC). These scores are designed to identify defensive, guarded, socially desirable or other unusual response patterns.

The *Faking Good* (FG) score is an indicator of the tendency to project a falsely positive self-concept. A score of 70T or above on the FG scale indicates the possibility of an invalid profile. The *Inconsistent Response* (INC) score indicates whether there is an unusually wide discrepancy in the individuals responses to pairs of items with similar content (e.g. 'Math is hard for me' and 'I like to work with numbers'). Inconsistency on these items is usually due to haphazard or careless responding. Unusually high scores (>70T) usually indicate that the profile should be interpreted with caution. The *Response Distribution* (RD) score is a measure of the individuals' certainty about the way S/he sees her/himself. This score is calculated by counting the numbers of extreme scores circled by the respondent. The *Self-Criticism* (SC) score consists of slightly derogatory statements (e.g. 'Sometimes when I am not feeling well, I am cross') which most people would admit to when responding candidly. An individual who denies most of these statements may be defensive and trying to depict him/herself in a more favorable light.

Self-Concept Scales. The TSCS:2 has six self-concept scales: 1) Academic/Work Self-Concept (ACA), 2) Family Self-Concept (FAM, 3) Moral Self-Concept (MOR), 4) Personal Self-Concept (PER), 5) Physical (PHY), and 6) Social Self-Concept (SOC).

The *Academic/Work* Self-Concept Scale (ACA) is a measure of how people perceive themselves and how they believe others perceive them in school and work situations. It is the most strongly related to actual academic performance of all of the TSCS:2 scores. The *Family* Self-Concept Scale (FAM) reflects the individuals feelings of adequacy and value as a family member. The *Moral* (MOR) Self-Concept Scale measures the individuals perception of self from a moral-ethical perspective. For the adult, this scale also reflects the individual's satisfaction with one's religion or lack of religion. The score on the *Personal* Self-Concept Scale (PER) reflects the individual's sense of personal worth and self evaluation of the person apart from the body and relationship with others. The score on this scale is a good reflection of overall personality integration and particularly well adjusted individuals will score higher on this scale. The *Physical* Self-Concept Scale (PHY) measures the individuals view of their body, state of health, physical appearance, skills and sexuality. The *Social* Self-Concept Scale (SOC) is a measure of how the individual perceives the self in relation to others and is a reflection of their sense of adequacy and worth in social interactions with other people.

Supplementary Scores. The Supplementary scores are groups of items from each of the six self-concept subscales that have historically been classified as expressing one of three primary areas or messages: 1) Identity - this is who I am, 2) Satisfaction - this is how satisfied I am with myself, and 3) Behavior - this is how I behave or what I do (Fitts & Warren, 1996). In general, the Satisfaction score reflects the individual's level of self-acceptance.

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Summary Scores: The TSCS:2 contains two summary scores: 1) total Self-Concept (TOT) and 2) Conflict (CON). The *Total* Self-Concept score reflects the individuals' overall self-concept and is the single most important score on the Tennessee Self-Concept Scale: (Second Edition). The *Conflict* score compares the extent to which an individual differentiates his/her self-concept by either agreeing with positive items (who I am) or disagreeing with negative items (who I am not). This score can indicate a balanced self view or signal the existence of conflict.

Client Demographic Information

Client demographic information was gathered by the intake interview counselor and documented on agency form number Z10. In addition, other demographic information was gathered from the agency application form which is initially filled out by the client. The intake counselor also had the opportunity to add to the information on the application during the intake interview. Both the agency application and the agency demographic form Z10 are used in all district offices across the state, thus, the process of gathering this information was identical for both treatment and control district offices. (See Appendices J and K).

Counselor Demographic Information

Each professional who carried a caseload at each of the treatment and control locations was asked to complete the counselor demographic form (see Appendix L). This information was gathered for comparison purposes between treatment and control groups

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when considering possible self-concept differences and other likely causal factors other than the treatment. Possible influences considered were years with the agency, credentials and so forth. These issues were investigated through the use of the counselor demographic form.

Evaluation of Program Form

Each participant in the treatment group was given the opportunity to provide written feedback to share information regarding their experience in the CLEO program (see Appendix G). This information was reviewed when assessing the impact of the program.

Procedures

A memo proposing the study was sent to the district manager of the district office at MJC-RS chosen as the treatment site. Upon approval, demographic data was requested on all district offices to review for the purposes of choosing appropriate control sites. Once the selection of treatment and control sites was made, a written request was made to the acting director of Michigan Jobs Commission - Rehabilitation Services for permission to include additional district offices as controls and for the use of agency data. The study and use of data was approved with the condition that results be shared with the agency upon completion.

Due to the nature of this study and the fact that it involved human subjects, an application was submitted to the University Committee on Research Involving Human

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Subjects (UCRIHS) for approval. Approval for the research project was granted from UCRIHS on January 23, 1998, prior to data collection (see Appendix L for letter of approval).

A master list was constructed of all participants (both treatment and control). This master list included participant name, participant identification number, date of pre-test, and group number. Identification numbers were transferred on to all instruments and evaluations in place of names so that confidentiality was maintained. This master list was maintained and held in confidence by the primary researcher. Professional staff were identified by an identification number and a separate master list of professional staff, identification number, site location of professional staff, and counselor/professional staff demographics was maintained.

Design

A quasi-experimental design with a nonequivalent control group was employed for this study. The treatment group was compared with control groups from two other district offices of the same state agency. The utilization of a control group, not only provides for a stronger design, but also prevents the ethical dilemma of offering a service to one client but not another. The instruments were administered to both the treatment and control groups at approximately the same time or point in the rehabilitation process (i.e. pretest at orientation and post test on specific posttest dates).

The existence of a control group and the use of this particular design controls for the following threats to internal validity: history, maturation, testing, instrumentation or

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"instrument decay", statistical regression, selection, mortality, and interaction of selection and maturation (Campbell & Stanley, 1963). According to Campbell & Stanley (1963), gain scores also help control for selection. In addition, this particular design also controls for interaction of testing and treatment - an external threat to validity. The use of a control group is helpful because many of these threats (e.g. the main effects for history, maturation, testing, and instrumentation) should be manifested equally in experimental and control groups (Campbell & Stanley, 1963).

The independent variables in this investigation were: a) Pretest Total Self-concept scores on the Tennessee Self-concept Scale and b) Pretest Academic/Work self-concept score on the Tennessee Self-concept Scale. Dependent variables included: a) Posttest Total self-concept score on the TSCS:2, controlling for pretest, and b) Posttest Academic/Work self-concept score on the TSCS:2, controlling for pretest.

Data Collection

Subjects were contacted by a member of the orientation staff at each district office during their first orientation appointment. The scripts used for the initial contact differed slightly depending on whether the contact was made at a treatment or control site (see Appendices C and D). During this initial contact, subjects were given information regarding the nature and purpose of the study. An informed consent form (see Appendix I) covering the nature of the study and data involved (Tennessee Self-concept Scale (TSCS:2) results, and demographic data) was signed by each subject. The Tennessee Self-Concept Scale (TSCS:2) was then administered. In addition, client evaluation of the

CLEO program, both written (Evaluation of Program Form) and verbal (group and individual feedback) was included as part of the data obtained from the treatment group. Demographic data is automatically gathered by the rehabilitation staff during orientation and intake and subsequent demographic information is gathered by the individual's rehabilitation counselor as a regular part of the intake process. All district offices in the public rehabilitation agency in the state use identical forms to gather client personal and demographic data (see Appendices I and J). Identical criteria is used across all district offices to determine level of severity of disability and is also recorded on the demographic form. Thus, procedures for collection of this data were identical for both the treatment and control groups. An examination of descriptive statistics (e.g. frequencies, percentages, means) was conducted in an effort to determine if the participants in the treatment group were representative of the larger population served by the treatment district office.

The Tennessee Self-Concept Scale was administered to the treatment group again during the individuals' last session of the treatment program. If the individual was not present at the last session of the treatment program s/he was contacted and an attempt to administer the posttest was made as soon as possible. If it was known in advance that an individual would be unable to attend the last session, the instruments were administered either after the last session they were able to attend or as close to the scheduled posttest date as possible.

The control groups completed the TSCS:2 posttest at the same time as the corresponding treatment group, or as close to that time as possible. The same efforts

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were used with control subjects who were either not present at, or unable to attend the posttest, as were used with the treatment group. All individuals were sent a reminder letter regarding the scheduled posttest one week prior to the scheduled date with exact times and locations. In addition, attempts to contact each participant (both treatment and control) were made by telephone one to two days prior to the scheduled posttest date as an additional reminder. Participants who dropped out of the treatment program were also sent letters and contacted by phone requesting they come in for the scheduled posttest.

All subjects who did not show up for, or arrange to take the posttest at a different time, were once again contacted by phone (or mail if the individual did not have a phone) and asked if they would prefer to either arrange a convenient time to come in to the local district office for the purposes of completing the instrument of if they would prefer to have the instrument mailed to them. Those who requested to complete the TSCS:2 posttest via mail were sent the instrument with a self addressed stamped envelope for their convenience (see Appendix F).

Data Analysis

Descriptive analysis were carried out on all predictor and outcome measures and also on the client and counselor demographic data obtained. Comparisons of the treatment and control groups were conducted to evaluate the premise that the groups were not significantly different. Specific demographic variables evaluated for subjects (clients) included the following continuous variables: a) age, and b) level of education (highest grade completed). Continuous variables evaluated for counselors include:

a) age, b) number of years at MJC-RS, and c) number of years in the field of rehabilitation.

In order to further describe participants (both treatment and control), frequencies and percentages were calculated on several categorical variables including: a) gender, b) race, and c) disability type. Frequencies and percentages were also calculated on several counselor categorical variables including: a) age, b) education, and c) credentials.

A correlation matrix was generated pitting the scores on the various dependent and independent measures. This analysis was conducted for the purpose of obtaining preliminary information regarding confounds and covariates.

The nature of the research questions and resulting research data required that a change in score be evaluated. Since outliers can have a potentially large impact on scores, a distribution of subjects on various scores were examined for outliers.

A paired-samples t-test was calculated to address the first and second research questions. This statistical analysis can be used to examine data from within subjects designs when two observations are made on each subject (i.e. pretest and posttest) (Shavelson, 1988). When considering the first two hypotheses in this study, the paired-samples t-test was used to determine whether any difference between two sample means (as measured by the pre and post measures of the TSCS:2 Total and Academic/Work scales) may be due to chance or represents a true difference between population means (Shavelson, 1988).

In order to address the third and fourth research questions, and determine if the treatment and control groups were different in regard to change or growth between the

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pre and post measures (Total and Academic/Work) of the Tennessee Self-concept Scale:2, an Analysis of Variance with difference scores was conducted. The Analysis of Variance using difference scores (or gain scores) examined the difference (or change) in performance from the pre-test to the posttest. The model for the analysis is identical to the ANOVA except that the difference score (posttest minus pretest) is the dependent variable rather than the posttest alone (Cook & Campbell, 1979). The gain score model looks for growth or differences in mean change between the groups rather than a difference in mean posttest scores. Allison (1990) indicates that although both the ANOVA using difference scores and the ANCOVA (Analysis of Covariance) do a nice job accounting for patterns typically found in data produced by the non-equivalent control group design, there are certain criteria that should be considered when choosing the appropriate model. According to Allison (1990), since the pre-test is not considered a causal predictor of either the treatment or control in this particular study, the use of ANOVA using difference scores would be most appropriate.

The Analysis of Covariance or ANCOVA was used to test hypotheses about treatment effects and their interactions in this study, and it can also be applied when more than one covariate has been measured in a study (Shavelson, 1988). The use of ANCOVA reduces the size of the error variance by including the pretest scores directly in the model (Cook & Campbell, 1979) and is a very powerful statistical test of the null hypothesis (Shavelson, 1988). The use of ANCOVA as a statistical method addresses the threat of 'interaction of selection and treatment' to external validity mentioned previously in the assumptions and limitations section, by addressing the problem of separating the effect of

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Due to the nested or hierarchical structure of the data (clients within counselors), consideration was given to reproducing the above analyses in a hierarchical linear model (HLM) framework if appropriate. According to Bryk and Raudenbush (1992), with the use of hierarchical linear models, each level (i.e. counselors, clients) has its own submodel, resulting in relationships being expressed among variables within a given level (client pretest score, client disability type) and how variables at one level influence relations at another (i.e. how counselor number of years in rehabilitation might influence client self-concept). However, since each counselor had no more than 3 clients in the study; the frequency of clients within counselors was too low for an examination of the effect of counselors on client outcomes to have meaningful results.

Recognizing that this study involves multiple outcomes, it was necessary to deal with the multivariate nature of the data. MANOVA and MANOVA extensions into HLM were conducted as appropriate.

Several additional analyses were also conducted in an effort to gather additional information on self-concept and self-concept change for persons with disabilities. These analyses were also performed in an effort to obtain more detailed information on possible program effects.

Finally, the .05 level of significance was used as the minimum rejection level of all statistical analyses.

CHAPTER 4

RESULTS

Characteristics of the Sample

Three hundred and thirty seven individuals who attended orientation at one of three district offices of Michigan Jobs Commission - Rehabilitation Services, between January 26, 1998 and May 1, 1998 were asked to participate in the study. All three district offices typically held orientation and recruited volunteers once a week throughout this period. Just prior to the beginning of the study it was determined that the study would be strengthened by adding a third group (second control site). Site #3 was added to the study and recruitment began the second week of the study.

Of the 337 individuals asked to participate, 204 individuals agreed for a participation rate of 60.5%. Participation rates for each site are shown in Table 1. In order to maximize the accuracy of information, and to reduce the amount of missing data, the researcher traveled to each site and physically obtained and reviewed case file information on all 204 individuals who agreed to participate in the study.

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Table 1- Participation rates from each site

Site Location	Total # Attended	Total # Volunteered	Participation (%)
Site #1	164	121	73.8
Site #2	120	55	45.8%
Site #3	53	28	52.8%
Total	337	204	60.5%

Two individuals participating at the treatment site wished to attend the CLEO program and complete all requirements, with the exception of the Tennessee Self-concept Scale: Second Edition (TSCS:2) pre and post tests, due to their difficulty with reading and reading comprehension; resulting in 202 completed pre-tests. Of the 202 completed pretests; 119 (58.9%) were completed by subjects from the treatment site (site #1), 55 (27.2%) were completed by subjects at control site #2, and 28 (13.9%) were completed by subjects from control site #3. Three pre-tests were determined to be "unscorable" by the test publisher - Western Psychological Services, due to an inadequate number of item responses, and consequently determined unusable - resulting in 199 useable pretests. Of these 199 pretests, several were returned as "unscorable" due to the information regarding age being either missing or inaccurately coded by the subject. Age information, on all

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pretests returned due to the age category, was obtained in all cases and properly coded by the researcher and these pretests were resubmitted for scoring.

Although it was anticipated, based on a power analysis, that the number of individuals needed for this study was 84; the level of attrition was higher than expected and therefore resulted in the final sample being lower than expected. A review of case status indicated that of the 202 individuals who completed a pre-test, 56 (27.8%) of these individuals no longer had a case open with MJC-RS at the time of posttest.

Sixty-nine (69) (34.7%) of the 199 individuals who completed pre-tests, also completed posttests. Forty-three (62.3%) of these individuals who completed posttests were from Site #1; 16 (23.2%) from site #2 and 10 (14.5%) from site #3. Individuals who completed the pretest but did not attend the treatment program were also requested to complete the posttest - 4 of the 43 individuals who took the posttest from site #1 fall into this category and were added to the control group. As a result, 39 or 56.5% of the completed posttests were from the treatment group and 30 or 43.5% from the control group.

Finally, within this group of 69, any individual with a caution regarding inconsistency of responses or possible invalid scores as a result of very high 'faking good' scores in either the pre or post test of the TSCS:2, was eliminated from the sample. Thirteen (13) individuals had a "caution" due to inconsistency of responses on either their pre or posttest and were therefore eliminated. An additional three (3) individuals were eliminated from the sample due to the possibility that their very high 'Faking Good' score resulted in their report scores being invalid. Therefore, due to cautions and possible

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validity problems, an additional 16 were removed from the sample of sixty-nine (69), resulting in a final sample of 53. The final sample of 53 consisted of 33 (62.3%) from the treatment group and 20 (37.7%) from the control groups.

Characteristics of Treatment Group

The treatment group consisted of 33 individuals from site #1, ranging in age from 20-72, with a mean age of 44 (43.76). These individuals had an average education level of 13.06, with a minimum level of education of 10 (completed the 10th grade), and a maximum level of education of >16 (completed more than 4 years of college). Ninety-four percent (n=31) of the individuals in the treatment group completed the 12th grade or higher. The demographic data show that of the 33 treatment group participants: 18 (54.5%) were female and 15 (45.5%) male. In terms of ethnicity, 69.7% (n=23) were white, 24.2% (n=8) were black, and the remaining 2 (6.1%) individuals fell into the categories of 'Native American' and 'Other'. In most cases (n=27, 81.8%) this was the individual's first referral to Michigan Jobs Commission - Rehabilitation Services. Twenty individuals (60.6%) in the treatment group fell into the category of receiving no public assistance, and the remaining 13 (39.4%) received a range of public assistance types.

Approximately twenty-seven percent (27.3%, n=9) of the individuals in the treatment group indicated their primary disability and barrier to employment was a 'Physical Impairment'. Two types of disabilities were the second most frequently cited as the primary disability; Mental and/or Emotional Disabilities (n=8, 24.2%) and

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Substance Abuse (drug or alcohol) (n=8, 24.2%). In 33.3% of the cases (n=11), a secondary disability was not indicated by either the individual seeking services, the individuals' rehabilitation counselor, or by supporting diagnostic information in the case file. The remaining 22 individuals (66.7%) had a range of secondary disabilities documented (see comparisons of treatment and control groups in Tables 7 and 8).

In terms of severity of disability, 30.3% (n=10) were coded a severity of 5 - the least severe code other than 9 which represents 'not severe'. Three individuals (9.1%) were coded as most severe (code 1), 36.4% (n=12) were coded as 4 - 'Severe disability with qualifying conditions', with the remaining 8 (24.2%) individuals falling in between these two groups with a code of either 2 or 3 (see comparison of treatment and control client groups in Table 7).

In regard to family status; 15.2% (n=5) were married, 24.3% (n=8) were divorced, 36.4% (n=12) were 'never married', 15.2% (n=5) were separated, and 9.1% (n=3) were widowed. The majority of the individuals in the treatment group (81.9%, n=27) had no dependents.

Attrition

A total of 202 individuals attending orientation at one of three district offices of Michigan Jobs Commission - Rehabilitation Services volunteered to participate in the study. One hundred nineteen individuals from the treatment site and 83 from the two control sites volunteered to participate. The treatment group had 119 volunteers which

were divided into 3 different categories: 1) No Shows, 2) Drop Outs and 3) Program Participants.

No Shows. Persons in this category are those who volunteered and chose not to attend the CLEO program. Sixty (60) men and 59 women volunteered to participate in the treatment program (CLEO). Of these 119 individuals, 31 (26.05%) no longer had a case open with MJC-RS and the remaining 10 (8.4%) chose not to attend. It should be noted that four of the individuals who chose not to attend the CLEO program did agree to complete a posttest to be evaluated as part of the control group.

Drop Outs. Persons in this category are those that attended at least one session of the treatment program but did not complete a posttest. Of the 78 individuals who attended CLEO, 39 (50%) met the criteria for the 'Drop Out' category.

Program Participants. Persons in this category completed one or more sessions of the treatment program and completed the posttest. Fifty percent (n=39) of the 78 individuals who attended one or more session of CLEO, met the criteria for being a program participant. The gender make up of Program Participants was 48.7% male (n=19) and 51.3% female (n=20). As discussed previously, several program participants were eliminated due to possible invalidity of report results, leaving a final sample of 33. The gender make up of this final group was 45.5% male (n=15) and 54.5% female (n=18).

Representativeness of Treatment Sample. Although there was the initial intention to compare volunteers to non-volunteers this was not possible in this particular study. All individuals who attended orientation at the treatment site were asked to participate and

sign consent forms. Since gathering demographic data from those who stated they would not like to participate would require asking them again to participate (although in a different way) and sign consent forms, etc. it was decided by agency administration that this would not be in the best interest of the client. It was felt that undue pressure may be placed on the client and that although it was stated otherwise, they may feel that in order to get needed services they should participate. Therefore, all individuals were asked only once to participate in the study and demographic information on those who chose not to volunteer was not collected.

However, when reviewing information regarding the treatment program and individuals who participated in the treatment group, it is important to determine if these individuals are representative of the larger population of individuals who seek services at the treatment site of Michigan Jobs Commission - Rehabilitation Services. A comparison of treatment group and district office general demographic information is shown in Table 2.

As indicated in Table 2 the demographics of the treatment group were generally similar to the demographics of the District Office as a whole. The treatment group had slightly higher percentages of persons who were female, who were receiving public assistance (P/A), whose disabilities were considered severe and whose ethnicity was black.

Table 2 - Comparison of Treatment and District Office Demographics

Variable	Treatment (%)	District Office (%)
Gender		
Female	54.5	46.8
Male	45.5	53.2
Ethnicity		
Black	24.2	18.1
White	69.7	80.0
Hispanic	0.0	.7
Other	3.0	1.2
Financial		
P/A	39.4	19.8
SSDI	9.1	20.7
Severe Cases	100.0	94.9

Characteristics of Control Group

The control group consisted of 20 individuals from three different sites. Table 3 shows the breakdown of participants in the control group by site. These individuals ranged in age from 22-55 with a mean age of 41 (40.55). Individuals in the control group had an average education level of 13.65, with a minimum education level of 9 (completed the ninth grade) and a maximum education level of >16 (completed more than 4 years of college). Ninety percent (n=18) of the control group completed the 12th grade or higher.

Table 3- Breakdown of control participants by site location

Site Location	Number of Participants	Percentage (%)
Site #1	4	20.0
Site #2	11	55.0
Site #3	5	25.0
Total	20	100.0

The demographic data show that of the 20 control group participants: Fifty-five percent (n=11) were male and 45% (n=9) female. In terms of ethnicity, 80% (n=16) were white and the remaining 20% (n=4) were black, with no other ethnic group being reported. In most cases (n=16, 80.0%) this was the individuals first referral to Michigan Jobs Commission - Rehabilitation Services. Ninety percent of the individuals in the control group fell into the category of either receiving no public assistance (n=11; 55 %) or food stamps only (n=7; 35%).

Forty percent (n=8) of the individuals in the control group indicated their primary disability and barrier to employment was a mental and/or emotional disability, with substance abuse (drug or alcohol) being the second most frequently cited primary disability (n=4; 20%). In 55% of the cases (n=11), a secondary disability was not

indicated by either the individual seeking services, the individuals' rehabilitation counselor, or by supporting diagnostic information in the case file. The remaining 9 individuals (45%) had a range of secondary disabilities documented. In terms of severity of disability, 55% (n=11) were coded a severity of 5 - the least severe code other than 9 which represents 'not severe'. Fifteen percent (n=3) were coded as most severe (code 1) with the remaining five (25%) individuals falling in between these two groups with a code of either 3 or 4 (see comparison of treatment and control groups in Tables 7 and 8).

In regard to family status; 30% (n=6) were married, 30% (n=6) were divorced, 35% (n=7) were 'never married' and one individual (5.0%) was separated. The majority of the individuals in the control group (65%, n=13) had no dependents.

Characteristics of the Counselors

The 53 participants in the study were assigned to 19 different counselors. Individual subjects in the control group (n=20) were assigned to 11 different counselors from across all three sites, while individual subjects in the treatment group were assigned to 10 different counselors from Site #1. Two counselors from Site #1 had clients in both the treatment and the control group. The age of counselors in the control group ranged from 31 -54 with a mean age of 41.09. Counselors in the treatment group ranged in age from 27-55 with a mean age of 41.90. All counselors in both groups have a Masters degree in either Rehabilitation Counseling or a related field. In terms of seniority, counselors in the control group had an average seniority with MJC-RS of 9.3 years with a range of 2 months to 28.3 years. Overall, counselors in the control group had worked in

the field of rehabilitation for an average of 12.36 years. Counselors in the treatment group had an average seniority of 11.2 years with the agency, with amount of seniority ranging from 3 months to 28.3 years. The average number of years in the field of rehabilitation for counselors in the treatment group was 14.0. Table 4 shows a comparison of treatment and control group counselors on demographic data and variables related to professional credentialing and experience.

Table 4 - Comparison of Treatment and Control Group Counselors

Variable	Control		Treatment	
	n	%	n	%
Male	2	18.2	3	30.0
Female	9	81.8	7	70.0
CRC	4	36.4	4	40.0
CSW	0	0.0	1	10.0
LLPC	1	9.1	2	20.0
LPC	7	63.6	5	50.0
MA/MA in Rehabilitation Counseling	4	36.4	7	70.0
MA/MA in Related Field	7	63.6	3	30.0

Impact of Treatment

Prior to addressing the research questions which were primary to the study, histograms were produced to check the distribution of outcomes to assess whether or not the assumption of the data being normally distributed was met. A histogram for subjects across all three sites revealed normal distributions on all outcomes. In addition, histograms of treatment on all outcomes and control on all outcomes were produced and reviewed, and revealed normal distributions.

Change in Academic/Work Self-concept. In order to evaluate the first research hypothesis and thus address the first research question, a paired samples t-test was conducted. The paired samples t-test is used to analyze the results of experiments when the difference between two measures for the same individual are of interest (Glass & Hopkins, 1996). Results from the paired samples t-test on the Academic/Work scale score for the treatment program shown in Table 5 indicate that we cannot reject the hypothesis that there is no change in client employment self-concept scores as a result of participating in the CLEO program as measured by the change in the pre and post measures of the Tennessee Self-Concept Scale Academic/Work (ACA) score, ($p \leq .230$).

Table 5 - Results of Paired Samples t-test for Academic/Work.

Paired Samples Statistics

Scale	Mean	N	SD
Pre ACA	45.27	33	9.04
Post ACA	46.88	33	6.77

Paired Samples Test (Paired Differences)

Scale	t	Significance
ACA	-1.224	.230

Although the difference between the means was in the expected direction, at the time of posttest, there is insufficient evidence to conclude that this difference represents anything other than a chance occurrence. The probability of obtaining a t value greater than 1.224 or less than -1.224 is not less than the designated significance level of .05 ($p<.230$).

Change in Total Self-Concept. The paired samples t-test was also used to evaluate the second research hypothesis and to address the corresponding research question. Based on the significant results ($p \leq .001$) of the paired samples t-test on the Total Self-Concept Scale (TOT) shown in Table 6, we can reject the null hypothesis that there will be no change in client overall self-concept scores as a result of participating in the CLEO program, as measured by the change in the pre and post measures of the Tennessee Self-Concept Scale Total Self-Concept Score.

A significant positive difference ($p \leq .001$) between the mean pretest and the mean posttest Total Self-Concept Scale scores indicates a significant positive change in total self-concept at the time of posttest for clients who participated in the CLEO program. Results of the paired samples t-test indicate that the probability of obtaining these results by chance alone, if in fact there is no difference, is <.001.

Table 6 - Results of Paired Samples t-test for Total Self-Concept.

Paired Samples Statistics

Scale	Mean	N	SD
Pre TOT	37.70	33	7.42
Post TOT	41.82	33	8.14

Paired Samples Test (Paired Differences)

Scale	t	Significance
TOT	-3.738	.001***

*** Indicates significance at less than .001

Comparison of Treatment and Control Groups

Prior to evaluating hypotheses three and four, and investigating the corresponding research questions, several procedures were utilized to evaluate the premise that the groups were not significantly different and whether assumptions for the analyses were met.

Comparability of Client Control Groups: To evaluate the premise that there were no significant differences between control groups in the client sample on the posttest measures, difference scores (posttest minus pretest) were constructed for each dependent variable. New variables were computed which represented these difference scores. An Analysis of Variance (ANOVA) using difference scores as outcomes was conducted on all three control groups (sites 1,2, & 3). A post hoc analysis, specifically, an all pairs Tukey with Honestly Significant Differences (Tukey HSD) was conducted. No significant differences were found between the control groups; therefore, all control groups were collapsed into one group. Complete tables for the ANOVA with difference scores can be found in Appendix N.

Comparability of Client Treatment and Control Groups: Tables 7 and 8 provide comparisons of demographic information on treatment and control groups in the client sample after all control groups were collapsed into one. Treatment and control groups were examined for possible mean differences on relevant demographic variables. An independent samples t-test (2 tailed) was used to test the hypothesis that there is no difference between the two groups on age and education. Results of this analysis can be found in Table 9. In addition, a 2X2 contingency table and Chi-Square test of association

was conducted between the two client groups (treatment and control) and Gender, to further examine if differences between the two client groups existed. An examination of the association between group (treatment or control) and gender failed to indicate any significant relation between variables ($\chi 2_{(1)} = .454$, $p \leq .500$). Significant differences were not indicated in any of these areas and the null hypothesis that there are no differences between these groups was supported.

Table 7
Comparison of Treatment and Control Groups (Client) - Descriptive Information.

Variable	Control		Treatment	
	n	%	n	%
Male	11	55.0	15	45.5
Female	9	45.0	18	54.5
White	16	80.0	23	54.5
Black	4	20.0	8	24.2
Native American	0	0.0	1	3.05
Other	0	0.0	1	3.05
Received no Public Assistance (P/A)	11	55.0	20	60.6
Received Food Stamps Only	7	35.0	4	12.1
Received SSI Cash Payment	1	5.0	2	6.1
Received Types of P/A not Listed	1	5.0	3	9.1
Primary Disability - Mental and/or emotional	8	40.0	8	24.2
Primary Disability - Substance Abuse	4	20.0	8	24.2
Primary Disability - Physical	4	20.0	9	27.3
Primary Disability - Other	4	20.0	8	24.3
Secondary Disability - None	11	55.0	11	33.3
Secondary Disability - Mental Illness	2	10.0	7	21.2
Secondary Disability - Back Injury	0	0.0	3	9.1
Severity 1 - SSDI	3	15.0	3	9.1
Severity 2 - SSI	0	0.0	2	6.1
Severity 3 - Disability Code	1	5.0	6	18.2
Severity 4 - Disability & Qualifying Conditions	4	20.0	12	36.4
Severity 5 - Functional Limitations	11	55.0	10	30.3
Severity 9 - Not Severe	0	0.0	0	0.0
Percent Severe	19	95.0*	33	100.0

*Note - Severity information on one individual is missing.

Table 8 - Comparison of Client (Continuous) Demographic Variables

	Control			Treatment		
Variable	M	SD	Range	M	SD	Range
Age	40.55	7.92	22-55	43.76	10.60	20-72
# Cases with MJC-RS	1.11	.32	1-2	1.22	.49	1-3
Education	13.25	1.23	9->16	13.06	1.66	10 - >16
# of Dependents	.50	.83	0-3	.28	.63	0-2

Table 9 - Independent samples t-tests:
Comparison of Treatment and Control Client Groups on Relevant Demographic Variables

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Variable	t	Significance (2 tailed)
Education		
Equal variance assumed	.373	.711
Equal variance not assumed	.356	.724
Age		
Equal variance assumed	-1.168	.248
Equal variance not assumed	-1.254	.216

Comparability of Counselor Groups: Treatment and control counselor groups were also examined for differences. With the exception of one counselor from Site #2, all counselors in all three district offices agreed to complete a demographic questionnaire (see Appendix K). The fact that one individual refused to provide this information did not affect this study since this counselor did not have any clients in the final sample. Information from an independent samples t-test, revealed no significant differences between the two groups on age, amount of time as an employee of MJC-RS, or amount of time working in the field of rehabilitation. The results of this examination of possible differences between treatment and control counselors are shown in Table 10.

For further examination of possible differences between counselor groups (treatment and control), 2X2 contingency tables and Chi-Square analyses were produced for the following categorical variables: Education, CRC, LPC, and LLPC. Since many of the cells had expected frequencies less than 5, a Fishers Test of Exact Probability was used as recommended by Isaac & Michael (1995). A chi-square test of association indicated no significant relationship between CRC and counselor group ($\chi 2_{(1)} = .032$, $p \leq 1.00$), Education and counselor group ($\chi 2_{(1)} = 2.951$, $p \leq .153$), or gender and counselor group ($\chi 2_{(1)} = .562$, $p \leq .567$). In addition, an examination of the association between counselor group and LLPC ($\chi 2_{(1)} = .562$, $p \leq .576$) and counselor group and LPC ($\chi 2_{(1)} = .554$, $p \leq .637$) failed to indicate any significant relationship between the variables. The results of these analyses can be found in Appendix O. It should be noted that the two counselors that had clients in both the treatment and control groups were eliminated from this analysis.

Table 10 - Difference between Treatment and Control Counselors

Variable	n	M	SD	F	Sig.
Age					
Control	9	40.44	6.69	2.883	.110
Treatment	8	41.38	10.47		
MJC-RS Seniority (in months)					
Control	9	86.89	53.88	1.072	.317
Treatment	8	112.38	97.75		
Number of Years in Rehabilitation					
Control	9	10.56	5.13	.499	.491
Treatment	8	12.38	7.80		

Difference between Treatment and Control Groups on Outcomes

In order to most precisely evaluate hypotheses 3 and 4, and the corresponding research questions, an ANOVA using difference scores was conducted. Although the use of an Analysis of Covariance (ANCOVA), using the pre-test as the covariate, would have addressed the third and fourth research questions, it was determined that the ANOVA using difference scores as outcomes would provide the more precise estimate of the treatment effects in this particular study.

The Analysis of Variance using difference scores (or gain scores) examines the difference (or change) in performance from the pre-test to the posttest. The model for the analysis is identical to the ANOVA except that the difference score (posttest minus pretest) is the dependent variable rather than the posttest alone (Cook & Campbell, 1979). The gain score model looks for growth or differences in mean change between the groups rather than a difference in mean posttest scores. Allison (1990) indicates that although the ANOVA using difference scores as outcomes and the Analysis of Covariance (ANCOVA) both do a nice job accounting for patterns typically found in data produced by the non-equivalent control group design, there are certain criteria that should be considered when choosing the most appropriate model. According to Allison (1990), since the pre-test is not considered a causal predictor of either the treatment or control in this particular study, the use of an ANOVA with difference scores would be most appropriate.

Difference between groups on Academic/Work Self-Concept: The third hypothesis in this study postulates that there will be no difference in growth between the treatment and control groups on the TSCS:2 Academic/Work scale. Pre and post mean scores on the Academic/Work self-concept scale for both treatment and control groups are displayed in Table 11. An Analysis of Variance (ANOVA) using the difference scores (posttest minus pretest) on the Academic/Work Scale as the outcome was conducted to evaluate this hypothesis and is shown in Table 12. In this analysis the alternative hypothesis is that a treatment effect would result in more change in the experimental group than in the control group. A review of the results of the analysis reveal that we cannot reject the null hypothesis that there is no difference in the mean change between groups on the Academic/Work Scale.

Table 11 - Pre and Post Mean Scores on the Academic/Work Scale

	Academic/Work Scale			
Attend CLEO?	n	Pre Mean	Post Mean	Sig.
No (Control Group)	20	46.10	45.15	.587
Yes (Treatment Group)	33	45.27	46.88	.230

Although the treatment group appears to have grown in the expected direction, as indicated in Table 11, we cannot reject the null hypothesis as the growth is only slight and the probability that we would have observed this difference if in fact there is none is $p \leq .241$. In other words, we would expect to observe this difference by chance alone, if in fact there is no difference, approximately 24% of the time.

Table 12 - ANOVA using difference scores on the Academic/Work Scale

ANOVA using difference scores

Outcome Variable	Sum of Squares	df	Mean Square	F	Sig.
Academic/Work					
Between Groups	81.360	1	81.360	1.410	.241
Within Groups	2942.829	51	57.703		
Total	3024.189	52			

Difference between groups on Total self-concept: An ANOVA with difference scores as outcomes was also used to evaluate the fourth hypothesis that there will be no difference in growth between the treatment and control groups on overall self-concept,and the research question associated with that hypothesis. The difference

score (posttest minus pretest) on the Total self-concept scale for each of the treatment and control groups was used as the outcome in the Analysis of Variance, and the two mean differences (shown in Table 13) were compared. The results of this analysis, as shown in Table 14, indicate that there is a significant difference ($p \leq .015$) between the treatment and control groups on the difference score of the Total self-concept scale of the TSCS:2 at the time of posttest. Since we would expect to observe this difference less than 1.5% percent of the time, if in fact no difference exists, we can reject the null hypothesis that there is no difference between the treatment and control groups on the difference score of the Total self-concept scale.

Table 13 - Pre and Post Mean Scores on the Total Self-Concept Scale

	Total Self-Concept			
Attend CLEO?	n	Pre Mean	Post Mean	Sig.
No (Control Group)	20	40.0	40.0	1.000
Yes (Treatment Group)	33	37.70	41.82	.001***

It is evident by the mean pretest and mean posttest scores shown in Table 13, that the growth in the treatment group on the Total self-concept scale is in the expected direction. The results of these analyses indicate that a treatment effect led to more change (growth) in the treatment group than in the control group on Total self-concept.

Table 14 - ANOVA using difference scores on the Total Self-Concept Scale

ANOVA using difference scores

Outcome Variable	Sum of Squares	df	Mean Square	F	Sig.
Total Self-Concept					
Between Groups	211.504	1	211.504	6.302	.015*
Within Groups	1711.515	51	33.559		
Total	1923.019	52			

*- Indicates $p \leq .05$

A weakness of the ANOVA with difference scores is that it does not provide a test for the presence of an interaction of the treatment group with the pretest (Cook & Campbell, 1979). Therefore, an Analysis of Covariance (ANCOVA) was conducted using treatment as the independent variable, Posttest score on the Total self-concept scale as the dependent variable, and the pretest score on the Total self-concept scale as the

covariate. Results of the ANCOVA in Table 15 show no significant interaction between treatment and pretest ($p \leq .505$) (shown graphically in Figure 2) which indicates that the effect of treatment on the posttest does not depend on the pretest. Since there is no interaction, we can interpret the treatment effects.

Table 15 - ANCOVA Treatment by Pretest Interaction Term

Effects	F	Sig.
Main Effects		
Attend CLEO	5.314	.025*
Pretest Total Self-Concept	85.653	.000
Interaction Effects		
Attend CLEO * Pretest (Total self-concept)	.450	.505a

* - Indicates $p \leq .05$
a - Indicates $p \geq .05$ (no interaction)

MANOVA: In recognition of the fact that this study involves multiple outcomes, the analyses were reproduced in a multivariate frame work. All of the effects reported were sustained when a Multivariate Analysis of Variance was executed. A complete table of the MANOVA results can be found in Appendix P.

Additional Analyses

Because research in the area of self-concept interventions specifically with persons with disabilities is so limited, several analyses were conducted to gather additional information on self-concept outcomes and self-concept change in persons with disabilities. In addition, the data was further examined in an effort to obtain more detailed information on possible program effects in other areas of self-concept included in the TSCS:2, but not specifically addressed in the primary research questions of this study.

Correlation Matrices, Scatterplots and Linear Regressions.

A correlation matrix using the Pearson correlation which is appropriate for interval or ratio data (Babbie, 1995) was generated using the scores on various dependent and independent measures, for the purpose of obtaining information about relationships between continuous variables. The correlation matrix indicated an association between two independent variables and certain outcome variables. The results summarized in Table 16 show two negative correlations between the following variables: 1) Education and the difference score on the Family self-concept scale (Diffam) ($p \leq 042$); and 2)Education and the difference score on the Personal self-concept scale (Difper) ($p \leq .044$) . In addition, the results reveal a positive correlation between Age and the difference score on the Social self-concept scale (Difsoc) ($p \leq .019$).

TABLE 16- Pearson Correlations between Client Variables

Pearson Correlations

Independent Variable	Dependent Variable	Correlation	Sig. (2-tailed)
Education	Diffam(Family)	-.355	.042*
Education	Difper (Personal)	-.355	.043*
Age	Difsoc (Social)	.406	.044*

* - Indicates $p \leq .05$

Additional analyses were conducted and reviewed to ascertain the functional relationship between the variables. According to Shavelson (1988), if a systematic relationship exists between two variables, a scatterplot will form a pattern. Scatterplots were produced and linear regressions executed for each pair of variables the correlation matrix indicated were associated. The results of these analysis are summarized inTable 17 and in Figures 3, 4 and 5.

Scatterplots for Education and each of the two variables associated with education indicate a pattern of negative correlation, meaning the difference score on each outcome (Family self-concept scale and Personal self-concept scale) decreases as education rises. The linear regressions for each of these pairs confirm this pattern. The linear regression

equation for Education and Family self-concept (Diffam) indicates a slope of -1.287 and an intercept (or constant) of 19.873; the linear regression equation for Education and Personal self-concept (Difper) indicates a slope of -1.222 and an intercept of 21.178. Both linear regression equations support the theory that as education increases, the change or gain score on these two outcomes decreases.

A scatterplot and linear regression were also performed on Age and the difference score on the Social self-concept scale (Difsoc). The scatterplot reveals a positive pattern of association between the two variables which was confirmed by the results of the linear regression analysis. The linear regression analysis shows a slope of .234 and an intercept of -6.118 indicating that as Age gets larger (or higher) the difference or gain score score on the Social self-concept scale gets larger.

TABLE 17 - Linear Regression Analyses on Associated Variables

Independent Variable	Dependent Variable	R-Sq.	R-Sq (Adj).	Intercept	Slope	F	Sig.
Education	Diffam	.126	.098	19.873	-1.287	4.477	.042*
Education	Difper	.125	.097	21.178	-1.222	4.424	.044*
Age	Difsoc	.165	.138	-6.118	.234	6.105	.019*

* - Indicates $p \leq .05$

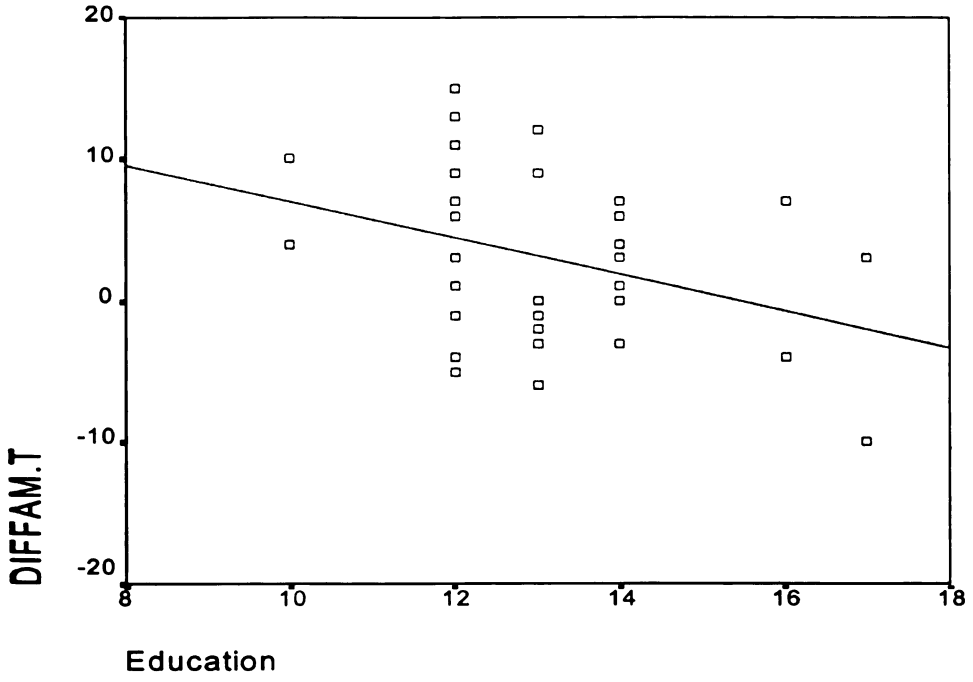


Figure 2 - Scatterplot
Level of Education and Difference in Family self-concept score.

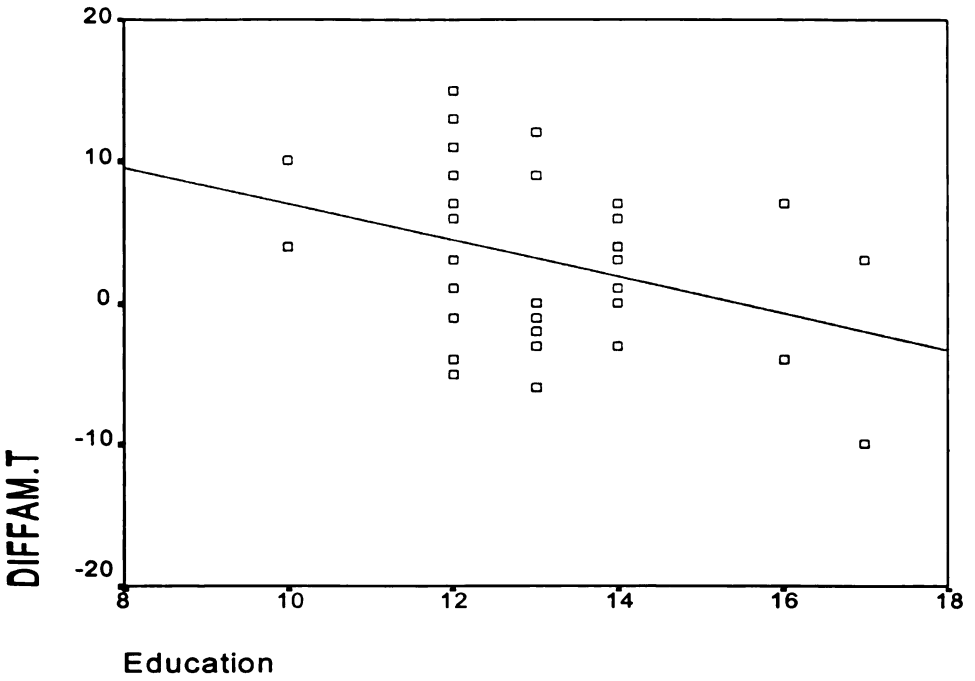


Figure 2 - Scatterplot
Level of Education and Difference in Family self-concept score.

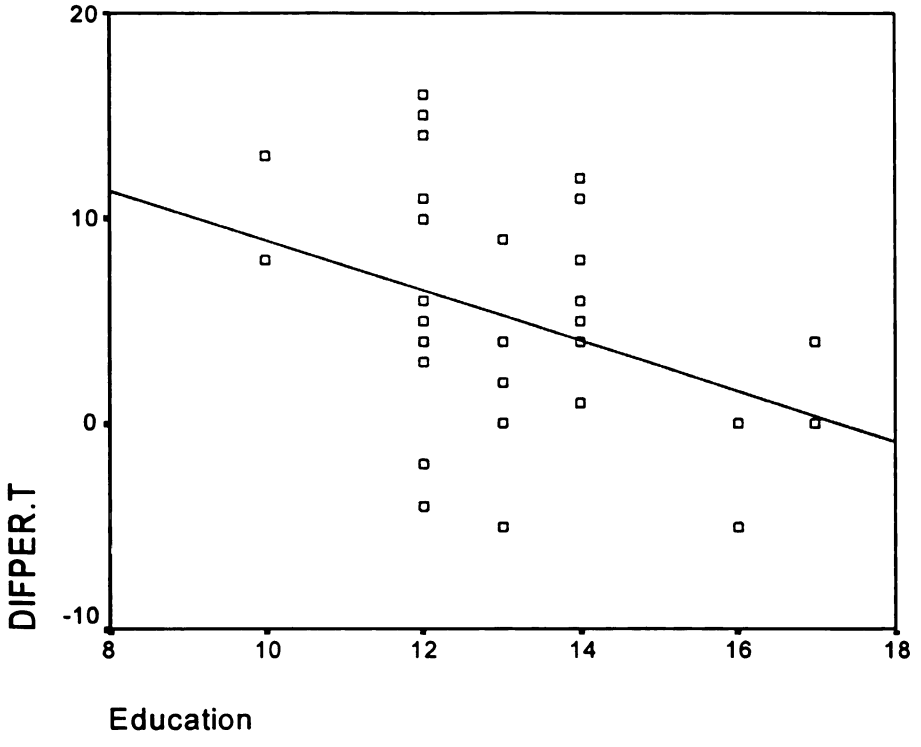


Figure 3 - Scatterplot
Level of Education and Difference in Personal self-concept score.

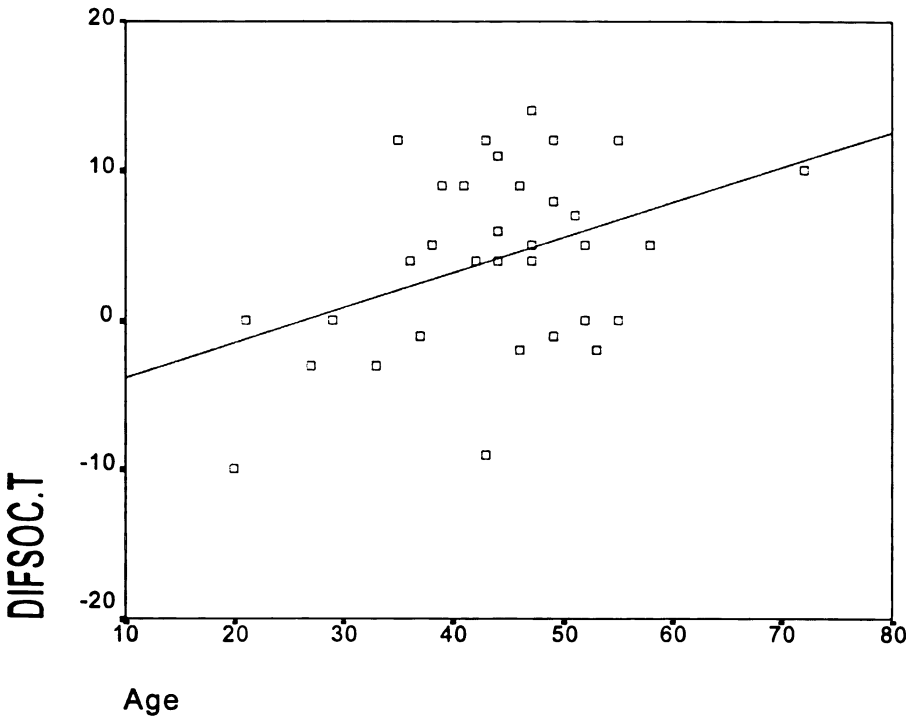


Figure 4 - Scatterplot
Age and Difference of Social self-concept score

Change in self-concept.

Additional paired-sampled t-tests and ANOVA's were performed on all outcome variables to obtain additional information about other possible treatment effects. Paired-samples t-tests were used to test the hypotheses about the mean difference between pairs of observations on the treatment group. Significance on several scales was revealed, indicating there was growth in the treatment group in these areas at the time of posttest. In addition, review of pre and posttest mean scores confirm that the growth was in the expected direction for the treatment group. Significance at the .05 level or better was observed for the scales shown in Table 18, indicating growth for the treatment group in these areas of self-concept.

For each of the outcome variables where a significant difference was indicated by the ANOVA, An Analysis of Covariance (ANCOVA) was conducted to test for the presence of an interaction between the treatment and pretest. Treatment was used as the independent variable in these analyses, posttest scores on the outcome variable as the dependent variable, and the pretest score on the outcome variable as the covariate. As shown in Table 19 the results of the ANCOVA's show no significant interaction between treatment and pretest for Family ($p \leq .533$), Personal ($p \leq .541$), Physical ($p \leq .858$), Behavior ($p \leq .606$), Identity ($p \leq .324$) or Satisfaction ($p \leq .488$), which indicates that the effect of the treatment on the posstest does not depend on the pretest. Since there is no interaction, the treatment effects can be interpreted.

Table 18 - Paired-samples t-test and Interactions on outcomes for treatment

Scale	Significance	Pre-Mean	Post-Mean
Self-Concept Scales			
Family (FAM)	.006**	38.52	41.58
Personal (PER)	.000***	36.55	41.76
Physical (PHY)	.002**	38.67	42.58
Social (SOC)	.001***	41.15	45.27
Supplementary Scores			
Behavior	.000***	37.73	42.03
Identity	.005**	37.18	40.67
Satisfaction	.000***	39.65	43.94

** - Indicates $p \leq .01$

*** - Indicates $p \leq .001$

However, when an Analysis of Covariance is executed to more closely examine treatment effect in regard to Social self-concept, a significant interaction is indicated between the Social self-concept pretest and the treatment ($p \leq .018$). As a result, the interpretation of main effects is not meaningful (Pedhazur, Pedhazur & Schmelkin, 1991). The existence of an interaction indicates that the effect of attending CLEO on the Posttest score of the Social self-concept scale, depends on the pretest score of the Social self-concept scale. Review of a scatterplot pitting pretest scores against posttest scores for treatment and control groups, and another pitting pretest scores against Difference scores for treatment and control groups, indicate that the effect of the treatment depends on the pretest. Specifically, the effect of attending CLEO was larger for individuals with lower pretest scores on the Social self-concept scale, than for those with higher pretest scores on the Social self-concept scale. Thus, the treatment effect on Social self-concept depends on the pretest.

Difference between Treatment and Control Groups on Self-Concept.

ANOVA's with difference scores were conducted to evaluate possible differences between the treatment and control groups on all outcomes not already analyzed. A significant difference on the mean difference (gain) score was found on 5 additional scales as represented in Table 20.

Table 19 - ANCOVA for Additional Outcomes

Interaction Effects	F	Sig.
Self-Concept Scales		
Family	.395	.533
Personal	.379	.541
Physical	.032	.858
Social	5.945	.018*
Supplemental Scales		
Behavior	.270	.606
Identity	.995	.324
Satisfaction	.489	.488

* Indicates $p \leq .05$

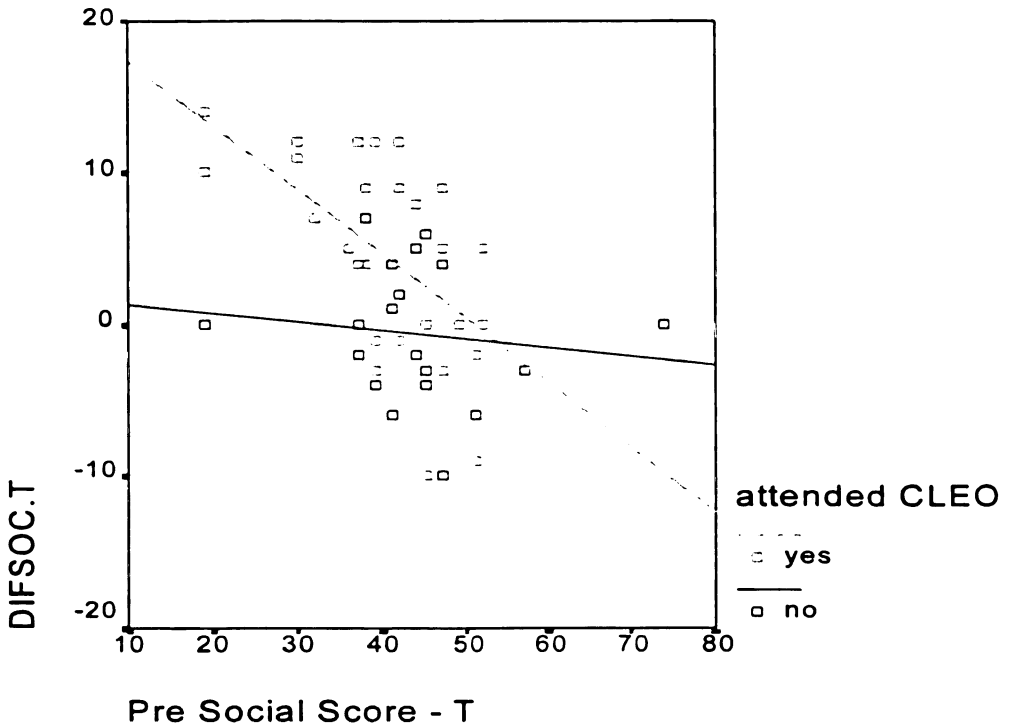


Figure 5 - Scatterplot of Pretest and Treatment Interaction (Social Self-Concept).

Table 20 - Difference between Treatment and Control on Outcomes

Scale	Significance
Self-Concept Scales	
Personal (PER)	.029*
Physical (PHY)	.050*
Social (SOC)	.005**
Supplementary Scores	
Behavior	.011*
Satisfaction	.009**

* Indicates $p \leq .05$

** Indicates $p \leq .01$

Hierarchical Linear Models.

Due to the nested nature of the data (clients within counselors), it was anticipated that the use of a Hierarchical Linear Models (HLM) framework would be necessary as such an analysis provides a sub model for each level (Bryk & Raudenbush, 1992) and would allow the examination of counselor effects on client outcomes. However, each counselor had no more than 3 clients in the final sample. As a result of the low number of subjects within counselors, it was determined that a Hierarchical Linear Models framework would not be appropriate.

Treatment Program.

Several additional analyses were conducted in order to obtain additional information on the treatment program and treatment participants.

Attendance. A frequency distribution of CLEO participants and total number of sessions attended was conducted and reviewed. The frequency distribution shown in Table 21 reveals a distribution that can be arbitrarily divided into three levels of attendance: Low, Medium and High.

Six (18.2%) of the 33 individuals in the final treatment sample met the criteria for 'Low Attendance'. These individuals attended a total of 5 sessions or less. Four (12.1%) individuals who met the criteria for 'Medium Attendance' attended a total of 6-7 sessions, and 69.7% (n=23) met the criteria for 'High Attendance' which involved attending a total of 8 or more sessions.

Table 21 - Frequency Distribution of Attendance for CLEO Participants.

Total Sessions Attended			
Sessions	Frequency	Percent	Cumulative Percent
2	1	3.0	3.0
3	1	3.0	6.1
4	1	3.0	9.1
5	3	9.1	18.2
6	1	3.0	21.2
7	3	9.1	30.3
8	6	18.2	48.5
9	5	15.2	63.6
10	4	12.1	75.8
11	8	24.2	100.0
Total	33	100.0	

Paired samples t-tests were conducted on each of these groups. Analyses on the 'Low Attendance' group revealed that there was no significant difference in pre and post mean scores in any area, and thus there does not appear to have been any change or 'growth' in the individuals in the 'Low Attendance' group, as measured by the change in pre and post measures of the Tennessee Self-Concept Scale on any of the self-concept, summary or supplemental scales. In addition, this 'Low Attendance' group was compared to the control group through the use of an ANOVA with difference scores and no significant differences were found between the two groups. All paired-samples t-tests for each of the three groups and the ANOVA with difference scores for the 'Low Attendance' group can be found in Appendix Q.

The same analyses were conducted on the 'Medium Attendance' and the 'High Attendance' groups. In the 'Medium Attendance' group, although the paired samples t-test was not statistically significant for growth between pre and posttest, the mean scores of pre and posttest indicate that growth occurred in the expected direction. An ANOVA with differences scores indicated a significant difference in the mean change or growth between the 'Medium Attendance' group and the control group Behavior (BHV), Personal (PER), Satisfaction (SAT), Social (SOC) and Total Self-Concept (TOT) as shown in Table 21.

Results of these same analyses for the 'High Attendance' group also reveal statistical significance. Paired-samples t-test results shown in Appendix P indicate statistically significant 'growth' on the following scales: Behavior ($p \leq .002$), Family ($p \leq .016$), Identity ($p \leq .002$), Personal ($p \leq .000$), Physical ($p \leq .013$),

Satisfaction ($p \leq .004$), Social ($p \leq .003$), and Total Self-Concept ($p \leq .003$). The ANOVA with difference scores for the 'High Attendance' group vs. the control group is summarized in Table 22. The results of this analysis demonstrate statistical difference between the two groups on several scales. A review of pre and post means indicate that, again, growth occurred in the expected direction and the 'High Attendance' group was statistically different than the control group on the following self-concept scales in regard to mean change or growth: Behavior, Personal, Satisfaction, Social and Total Self-Concept.

Based on the analysis of attendance, it seems the optimal level of attendance for the CLEO program is 6 or more sessions. Reproducing the same analyses (paired-samples t-tests and an Analysis of Variance using difference scores as outcomes) for the 'Optimal Attendance' group, significance was found on several scales. Paired-samples t-test results reveal significant 'growth' on the following scales: Behavior ($p \leq .000$), Family ($p \leq .010$), Identity ($p \leq .001$), Personal ($p \leq .000$), Physical ($p \leq .005$), Satisfaction ($p \leq .001$), Social ($p \leq .001$), and Total Self-Concept ($p \leq .001$). An Analysis of Variance with difference scores also indicates that this group is significantly different than the control group on several scales outlined in Table 22. Significant scales on the ANOVA include: Behavior, Identity, Personal, Satisfaction, Social and Total Self-Concept.

Table 22 - ANOVA Table for Attendance vs. Control Group

	Medium (n=4)		High (n=23)		Optimal (n=27)	
Scale	F	Sig.	F	Sig.	F	Sig.
Academic/Work	2.989	.098	1.433	.238	2.259	.140
Behavior	4.741	.040*	5.195	.028*	6.809	.012*
Conflict	.119	.733	.275	.603	.344	.560
Family	.368	.550	.452	.505	.575	.452
Identity	1.310	.265	3.903	.055	4.197	.046*
Moral	3.581	.072	1.556	.219	2.652	.110
Personal	5.659	.026*	5.761	.021*	7.534	.009**
Physical	.487	.493	2.821	.101	3.076	.086
Satisfaction	5.976	.023*	5.448	.025*	7.476	.009**
Social	10.882	.003**	8.032	.007**	10.215	.003**
Total Self-Concept	7.459	.012*	5.799	.021*	7.711	.008**

* Indicates $p \leq .05$

** Indicates $p \leq .01$

Evaluation of the Treatment Program. Each participant was asked to fill out an evaluation of the CLEO program at the end of the last session (see evaluation form in Appendix G). Approximately 82% (n=27, 81.8%) of program participants completed an evaluation form regarding the program. Participants were asked questions regarding each topic area, how useful they felt it was to learn about each of the topic areas, whether their skills in that area had improved, how confident they were about their skills in each topic area, and whether this level of confidence was an improvement from when they started the CLEO program. Participants responded using a 5 point likert-type scale with 1 being lowest and representing "not at all", 3 representing "somewhat" and 5 being highest and representing "very". Detailed information regarding participant evaluations of all topic areas are displayed in Appendix R.

Topic Area 1: Communication Skills. One hundred percent of the respondents (n=27) indicated they felt that learning about communication skills was useful; 97% (n=26) indicated their communication skills had improved; !00% (n=27) felt at least somewhat confident about their communication skills; and 100% (n=27) indicated that their level of confidence was at least somewhat of an improvement from when they started the CLEO program. Eleven individuals (33.3%) felt that their level of confidence was very much improved from when they started the CLEO program.

Topic Area #2 -Problem Solving Skills. Participant response to the topic area of Problem Solving skills indicated that 100% (n=27) of those who responded felt that the topic area was somewhat useful or better, and that their skills in this area had improved. In addition, all participants who responded stated that they felt at least somewhat

confident in their Problem Solving skills and that this level of confidence was an improvement from when they started the CLEO program.

Topic Area #3 - Social Skills. One hundred percent (n=27) of respondents felt that the topic area of Social skills was useful to learn about, and 96.3% (n=26) felt that their skills had improved at least somewhat. All individuals (n=27, 100%) felt at least somewhat confident regarding these skills, and believed that this level of confidence was an improvement from when they started the CLEO program.

Topic Area #4 - Job Seeking Skills. All respondents (n=27) felt that learning about Job Seeking skills was useful, that their skills in this area had improved, and that they were at least somewhat confident about their skills in this area. In addition, 100% of those who responded (n=27) felt that this level of confidence regarding their Job Seeking skills was an improvement from when they started the CLEO program.

Topic Area #5 - Interview Skills. All participants who responded (n=26) indicated that learning about Interview skills was useful, 96.7% (n=25) felt it was at least somewhat helpful or better. All respondents felt that their Interview skills had improved and that they were at least somewhat confident in their Interviewing skills. One hundred percent of respondents (n=26) believed that their level of confidence in the Interview skills was an improvement from when they started the CLEO program.

Due to the fact that most individuals found all topic areas useful, believed that their skills had improved, were at least somewhat confident in their skills, and felt this level of confidence was an improvement from when they started the CLEO program, it is

not possible to describe participants who were either more or less satisfied than others with the Comprehensive Labor and Employment Opportunities (CLEO) program.

Homework and Instructor Information. Each participant was asked to provide information regarding whether or not they had completed the homework for each topic area. Appendix S shows the breakdown of homework completed by topic area. In general, homework information on each topic area indicates that over 57% of the respondents reported that they completed the homework for that particular area. In addition, 100% of the respondents felt that the instructor was knowledgeable about every topic area.

Summary of Hypotheses

In order to provide a synopsis of the purpose and findings of this study, the primary research hypotheses will be restated and results summarized.

Hypothesis 1:

> There will be no change in client Academic/Work self-concept scores as a result of participating in the CLEO program, as measured by the change in the pre and post measures of the Tennessee Self-Concept Scale (Second Edition) Academic/Work self-concept scale.

Results of a paired-samples t-test showed no significant change between pre and post measures of the TSCS:2 Academic/Work self-concept scale ($p \leq .230$) after the

posttest. Although there was a change in the pre and post means which was in the expected direction, no evidence was found to support the alternative hypothesis that there would be a positive change in employment self-concept as a result of participating in the CLEO program.

Hypothesis 2:

> There will be no change in client overall self-concept as a result of participating in the CLEO program, as measured by the change in the pre and post measures of the Tennessee Self-Concept Scale (Second Edition) Total Self-Concept Score.

A paired samples t-test did show a significant ($p \leq .001$) change in pre and post means on the TSCS:2 Total self-concept score at the time of posttest for CLEO participants. Therefore, based on these results, we can reject the null hypothesis that there will be no change (or growth) in client overall self-concept as a result of participating in CLEO.

Hypothesis 3:

> There will be no difference in the growth between the treatment and control groups on employment self-concept as measured by the difference between pre and post measures of the Tennessee Self-Concept Scale (Second Edition) Academic/Work self-concept scale.

An Analysis of Variance with difference scores did not demonstrate a significant difference in change (or gain) score between the treatment and control groups at the time of posttest on the Academic/Work self-concept scale. Although, based on pre and post mean scores, the treatment group appears to have grown in the expected direction; there was no evidence to support the alternative hypothesis that the treatment group grew or changed significantly more than the control group.

Hypothesis 4:

> There will be no difference in the growth between the treatment and control groups on overall self-concept as measured by the difference between pre and post measures of the Tennessee Self-Concept Scale (Second Edition) Total self-concept score.

Based on the results of an ANOVA with difference scores, significant differences ($p \leq .015$) were found between the treatment and control groups on overall self-concept at the time of posttest, as measured by the difference between the mean pre and mean post measures of the TSCS:2 Total self-concept score. The results of this analysis indicate that we can reject the null hypothesis that there will be no difference in growth between the treatment and control groups on overall significance. In addition, as shown by pre and post mean scores of Total self-concept, it is evident that the treatment group grew in the expected (positive growth) direction.

CHAPTER 5

DISCUSSION

Summary of Results

The primary purpose of this study was to determine if participation in the Comprehensive Labor and Employment Opportunities (CLEO) program had a positive effect on the self-concept of persons with disabilities. This was accomplished through the measurement of self-concept in specific areas (e.g. employment self-concept) and a more global measure of self-concept (e.g. overall self-concept).

Discussion of results centers primarily around four questions:

1. Is there a positive change in clients' employment self-concept after participating in the CLEO program?

2. Is there a positive change in clients' overall self-concept after participating in the CLEO program?

3. Is there a difference in growth between treatment and control groups on employment self-concept.

4. Is there a difference in growth between treatment and control groups on overall self-concept?

The methodology used to examine these questions involved the administration of a treatment program to a group of individuals with disabilities, and comparison of this treatment group to a control group of individuals with disabilities who were not involved in the treatment program. Pre and post measures of the Tennessee Self-Concept Scale (Second Edition) were taken of both groups in order to address the issues primary to this study.

The first and third questions investigated self-concept specifically in the area of employment self-concept. There were no significant differences in terms of growth or positive change within the treatment group, or in regard to the treatment versus the control group at the time of posttest; as measured specifically by the Academic/Work self-concept scale on the TSCS:2. Participation in the CLEO program did not result in significant improvement in employment self-concept of those in the treatment group. In addition, the treatment group did not "grow" significantly more in the area of employment self-concept, than individuals who did not participate in the CLEO program. No significant differences were found in regard to demographic variables (e.g., gender, disability type, severity of disability) and outcome. Although there is not enough evidence to indicate that participation in the CLEO program results in significant improvement in the area of employment self-concept (Academic/Work self-concept); results do indicate that self-concept scores increased in the direction expected.

Review of participant comments on the evaluation of the CLEO program form may assist in formulating a hypothesis in regard to why there was no significant increase in employment self-concept in the treatment group. Several individuals indicated that although they found the employment related topics (e.g. Job Seeking skills, Interviewing Skills) informative, they were not yet in a place in their rehabilitation programs where they would be utilizing these skills. Many individuals had not yet determined a feasible vocational goal which would be compatible with their skills, interests and abilities and, at the same time, take into consideration any restrictions or limitations they may have. Consequently, an effort to work with individuals from the very beginning of their rehabilitation program to control for any effects the process of rehabilitation may have had on the individual, may ultimately be too early in this process for the addressing of employment issues to have a significant effect.

When examining possible reasons for why no significant growth occurred, one important consideration is the primary construct measured by this scale. In addition to measuring an individuals' perception of themselves in school and work settings; the Academic/Work self-concept scale "...is the most strongly related of all the TSCS:2 scores to actual academic performance" (Fitts & Warren, 1996, p.24). In general, many individuals with disabilities have had very negative academic experiences due either to the disability itself in relation to academic functioning (i.e. developmental disabilities, learning disabilities, attention deficit disabilities); or due to the attitudes of peers, educators and others in the academic setting based on the stigma often associated with many disabilities (i.e. mental illness) or with persons with disabilities in general. Many

authors consider the less than ideal treatment of persons with disabilities to be primarily due to negative societal attitudes and beliefs regarding individuals with disabilities (Arokiasamy, Rubin & Roessler, 1995; Fine & Asch, 1993; Hahn, 1993).

When considering this hypothesis it is also important to remember that equal and appropriate education for children with disabilities did not become available until after 1973. The Education for All Handicapped Children Act (later retitled the Individuals with Disabilities Education Act (IDEA) in 1991) was stimulated by congressional concern about the exclusion of children with disabilities from public schools and poor quality of the educational programs available to them (Rubin & Roessler, 1995). It is important to note that 94% (n=31) of the individuals in the final sample were born before 1973; 87.9% (n=29) would have started their education prior to 1973; and at least 63.6% (n=21) would have completed high school prior to 1973. Consequently, it is possible that many individuals in the final sample had academic experiences which were negative.

Question two examines whether or not participation in the CLEO program resulted in a significant increase in overall self-concept. A significant difference ($p \leq .001$) between pre and post mean scores on the Total self-concept summary scale of the TSCS:2 was found. The Total self-concept score is a summary score reflecting the individual's overall self-concept and is the single most important score on the TSCS:2 (Fitts & Warren, 1996). This suggests that individuals who participated in the CLEO program experienced a significant increase in overall self-concept as measured at the time of posttest.

Several additional findings in regard to participant variables which may be related to outcome, are of interest. Although no linear relationship was found between attendance and outcome; participants who attended 6 or more sessions of the CLEO program, improved or increased significantly on several self-concept scales as compared to those who attended fewer than 6 sessions. Results indicated that while persons who attended less than 6 session did not have significant improvement on any self-concept scale; persons attending 6 or more sessions of CLEO had significant improvement on several self-concept scales. Significant positive growth occurred for persons attending 6 or more sessions on the following self-concept scales: Behavior ($p \leq .000$), Family ($p \leq .016$), Identity ($p \leq .002$), Personal ($p \leq .000$), Physical ($p \leq .013$), Satisfaction ($p \leq .004$), Social ($p \leq .003$), and Total self-concept ($p \leq .003$).

Moderator Variables

Additional findings include relationships between level of education and improvement in Family self-concept; level of education and improvement in Personal self-concept; and age of participant and improvement in Social self-concept. In regard to Education, there is a negative correlation between level of education and amount of improvement in Family self-concept. In addition, the same relationship was indicated between level of education and Personal self-concept.

The Family self-concept scale reflects the individual's feelings of adequacy, worth and value as a family member. It refers to the individual's perception of him/herself in relation to his or her immediate circle of associates. Individuals with

higher education had both pre and post mean scores on Family self-concept which were lower than individuals who had less education. In other words, as education goes up, the difference in the mean score on Family self-concept goes down. Specifically, for every one unit change (increase) in education, the level of Family self-concept decreases by 1.287. This may indicate that individuals who participate in the CLEO program and have less education may gain more in the area of Family self-concept than those who participate with more education. Although there may be a number of plausible explanations regarding this relationship between education and Family self-concept, no definite explanation can be derived from the data, and further research is warranted.

Level of education was also negatively correlated with Personal self-concept. The Personal self-concept scale is a measure of the individuals sense of personal worth and self-evaluation of the person apart from the body or relationships with others. Again, those with a higher level of education had both pre and post mean scores on Personal self-concept which were lower than those who had less education. Overall, those with higher education did not gain as much in the area of Personal self-concept as those with less education. Specifically, for every unit change (increase) in education, the change score (or difference score) decreased by 1.222. This seems to indicate that those with less education would benefit more in the area of Personal self-concept by attending CLEO than those with higher levels of education. However, this finding should be interpreted with caution. Since the Personal self-concept scale is generally a reflection of overall personality integration; it should be noted that five of the 11 individuals with the highest level of education have a primary disability of mental illness. More specifically, three of

the four individuals who have an education level of 16 or higher have a mental illness with psychotic features. Therefore, on a scale which measures personality integration, these results may be more a function of the individuals' primary disability rather than level of education.

Overall, these findings seem to suggest that individuals with lower levels of education may be able to benefit more from the CLEO program than those with higher amounts of education in the areas of Family self-concept and Personal self-concept. In addition to the cautions mentioned above when interpreting these findings; it may also be important to consider that socioeconomic status and occupation influence self-concept scores. Specifically, disadvantaged or individuals employed in service jobs, or not employed outside the home, tend to score lower on self-concept scales (Fitts & Warren, 1996). Although all individuals in this study are unemployed, it might be important to consider that individuals with higher education in this study may experience more of a discrepancy between where they <u>are</u> occupationally and where they "<u>should</u>" be. This discrepancy may influence self-concept particularly in the area of Personal self-concept which is reflective of feelings of personal worth and adequacy.

In this particular study, age is positively correlated with improvement in Social self-concept. In other words, the mean increase in the difference between pre and post measures of Social self-concept gets larger as age goes up. This finding is actually contrary to other studies using the Tennessee Self-Concept Scale as a measure of self-concept. Several research studies conducted by Postema, (1970); Thompson, (1972); and data used to support the 1988 (and subsequently 1996) editions of the Tennessee

Self-Concept Scale (Fitz & Warren, 1996) have demonstrated that older individuals tend to score lower on self-concept scales such as: Self-Criticism, Physical and Academic/Work and higher on the Total, Moral, Social and Satisfaction self-concept scales. In this particular study, individuals who were older had a lower mean score on the pretest in the area of Social self-concept than individuals who were younger; however, these same individuals had a higher mean score in the area of Social self-concept on the posttest than younger individuals. Therefore, although older individuals started out with a lower overall score on Social self-concept, after participation in the CLEO program they had more "growth" and subsequently a higher mean score on Social self-concept at the time of posttest. This finding seems to indicate that older individuals benefit more from participating in the CLEO program than younger individuals in the area of Social self-concept. Specifically, for every unit age changes (increases) the gain score or difference score in Social self-concept increased by .234. Since this is contrary to other research findings in regard to the relationship of age and Social self-concept, it is important to consider possible explanations. One possibility is the issue of social isolation. The Social self-concept score is a measure of how the individual perceives their social skills (or lack of social skills), and how the self is perceived in relation to others; a low score can indicate feelings of social isolation and a fear of taking the risks involved in relieving that social isolation. The relationship in this study between age and Social self-concept may indicate that older individuals with disabilities are more isolated from peers and have fewer opportunities for social interaction than individuals who are younger, and than older individuals who do not have a disability. In addition, the number

of individuals who are older and have a primary or secondary disability which is a physical impairment may influence these individuals' opportunities for social interaction. Frequently individuals with physical disabilities have issues related to personal care and transportation which impact upon their opportunities for social interaction. When we consider this hypothesis in relation to the treatment group; six of the 9 individuals (66.7%) whose primary disability is a physical impairment are over the sample mean age of 43.76; and 7 of the 10 individuals whose secondary disability is a physical impairment (70%) are also older than the sample mean age. Overall, 13 of the 19 (68.4%) individuals who have a physical impairment in the treatment group are over the mean age of 43.76. Therefore, as a result of their age, employment status (unemployed), and disability status (approximately 70% have a physical disability); it is possible that the mean score on the Social self-concept scale at the time of pretest is a reflection of feelings of social isolation and social awkwardness. In addition, it is also possible that the increase in posttest scores on the Social scale which represents a large gain or "growth" in the area of Social self-concept for older individuals is a result not only of the Social Skills component of the program, but also a function of the "group effect". The opportunity to participate in the CLEO program provided these individuals with an opportunity to interact socially with individuals similar to themselves for several weeks and to possibly feel less socially isolated.

The last question, question four, also considers the issue of overall self-concept, but specifically examines the comparison between treatment and control groups in regard to "growth" or improvement in overall self-concept as measured by the Total self-concept

scale on the TSCS:2. Significant differences ($p \leq .015$) were found on the mean difference scores of Total self-concept between the treatment and control groups at the time of posttest. In addition, an ANCOVA revealed that there was no interaction between the pretest and treatment, thus allowing the interpretation of a treatment effect. Based on the analyses used to examine question four, the results indicate that individuals who participated in the CLEO program had significantly more "growth" in the area of Total self-concept than individuals who did not participate in the CLEO program at the time of posttest. These findings indicate that people who attend the CLEO program may experience more "growth" in Total self-concept than individuals who do not attend the program.

In recognition of the fact that this study involved multiple outcomes, all analyses were reproduced in a multivariate framework. All effects reported were sustained when a Multivariate Analysis of Variance (MANOVA) was executed.

Additional analyses on self-concept scales not directly addressed by the primary research questions were also conducted. Results of these analyses indicate that the treatment group improved or "grew" on seven additional scales included in the TSCS:2. Therefore, the treatment group had significant growth on a total of 8 scales which include four Self-Concept scales: Family ($p \leq .006$), Personal ($p \leq .000$), Physical ($p \leq .002$), and Social ($p \leq .001$); three Supplementary scales: Behavior ($p \leq .000$), Identity ($p \leq .005$) and Satisfaction ($p \leq .000$); and one Summary scale : Total self-concept ($p \leq .001$). There was no evidence of significant growth by the control group on any scale.

In addition, when compared to the control group on all scales included in the TSCS:2, the treatment groups' mean "growth" was significantly higher than the "growth" by individuals in the control group on a total of 6 scales. These scales include: three Self-Concept scales - Personal ($p \leq .029$), Physical ($p \leq .050$) and Social ($p \leq .005$); two Supplementary scales - Behavior ($p \leq .011$) and Satisfaction ($p \leq .009$); and one Summary scale - Total self-concept ($p \leq .015$).

In summary, significant differences were found between pre and post measures for the treatment group on a total of 8 scales of the TSCS:2, and all differences were in the expected direction. In addition, the treatment group grew significantly more than the control group on a total of 6 scales included in the TSCS:2. No evidence was found to support the hypotheses that individuals in the treatment group would improve in the area of employment self-concept, or that the treatment group would "grow" more than individuals in the control group in this area.

In examining the treatment group more closely it was determined that individuals who attended 6 or more sessions of the CLEO program had significantly more growth in several areas of self-concept than individuals who attended less than 6 sessions. This finding would indicate that participants who attend 6 or more sessions of the CLEO program would have more than likely derive more benefit from the program than individuals who attend less than 6 sessions.

In regard to program evaluation, the majority of individuals felt all topics were useful, that their skills in each area had improved, they were at least somewhat confident in their abilities in each area, and that their level of confidence reflected an improvement

from when they started the program. In addition, 100% of participants believed that the instructor was knowledgeable in each topic area.

Assumptions and Limitations

Results and conclusions from this study should be interpreted only within the context of the study's assumptions and limitations.

First, it is recognized that the lower than anticipated number of subjects in the final sample is a limitation of this study. Although it was expected that recruiting 110 individuals would yield a final sample of 84; attrition was much higher than expected, and the recruitment of 204 subjects resulted in a final sample of 53. As a result, the sample size should be taken into consideration when interpreting and generalizing the results of this study. However, although sample size is a significant factor in power, other research elements also affect power (Cohen, 1988). According to Cohen (1988) "Experimental design is an area of inquiry wholly devoted to the removal of irrelevant sources of variability for the increase of precision and therefore the increase of the statistical power of the tests of null hypotheses" (p.8). Therefore, although sample size is recognized as a limitation, the results of this study remain promising. Empowered

Data Collection. Data collection for this study only took place in 3 district offices of the state/federal vocational rehabilitation agency in Michigan. The district offices chosen for the study were offices chosen for the purposes of comparability, not randomly selected. In addition, several groups of individuals do not attend orientation and are instead directly referred to a counselor (e.g. special education students from local school districts, individuals who qualify for supported employment) and therefore are not

represented in this sample. However, all individuals who attended orientation at these offices were offered an opportunity to participate in the study.

It should also be noted that this was a convenience sample and not all persons who wish to become employed are able to pursue services with MJC-RS, either because of logistical reasons (e.g. individuals are institutionalized, transportation), disability type (e.g. individuals with legal blindness who are served by a different agency), or because they are not aware of services available to them and are therefore unable to access them.

Representation of Disability Populations. In addition to the populations indicated above who do not attend orientation, several disability populations are not represented for various reasons. Individuals who are legally blind are not represented as these individuals are served by a separate agency. In addition, individuals who are deaf are also not represented. However, the 33 individuals in the final sample represent 18 different disability categories including physical, cognitive, psychiatric, and emotional disabilities.

Representation of Age categories. Individuals in this study represent a range of ages from 20 - 72. However, the population served by the state/federal vocational rehabilitation agency is a population of working age. Therefore, ages 16-19 are not represented and more than likely fall into the category of individuals who are special education students who are directly referred to agency counselors rather than attending district office orientation.

Instrumentation. The reading level necessary for the TSCS:2 is a minimum of 3rd grade. Individuals who read at lower than 3rd grade were unable to take the instrument

independently. Two individual chose to participate in the CLEO program but did not take the instruments due to difficulty with reading. Although the researcher offered to read the instruments to each of the individuals, both declined. Both individuals did agree to have the evaluation of the program form read to them and they narrated their responses.

The instrument requires reliance on a self-report format, therefore this study assumes that self-report is a valid and reliable method of collection information regarding self-concept. According to Wylie (1974), subjects' cognitions and attitudes about themselves are private and beyond direct observation of the investigator, thus making self-report necessary. Construct validity is an important consideration when using self-report measures. The construct validity of the TSCS:2 has been well established and extensive research has been done addressing factor structure and concurrent validity in addition to other areas (Fitts & Warren, 1996).

Design Limitations. The limitations of the design of this study, referred to by Isaac & Michael (1995) as a 'non-randomized control group pretest - posttest design' and 'nonequivalent control groups design' by Cook & Campbell (1979) include the following threats to external validity: 1) Interaction of selection and history, 2) interaction of selection and maturation and 3) Interaction of selection and testing. The selection of data analysis procedures, in particular the use of ANCOVA to take into account possible interaction effects, was undertaken to address these threats to external validity.

An additional limitation of this study involves the fact that this particular intervention was time limited and only addressed the immediate effects of the

intervention. It is recognized that following the subjects through to case closure and examining employment results and levels of self-concept at a later time would be ideal. However, due to the average length of time a client received services from the state/federal vocational rehabilitation program in Michigan, (an average of 20 months), prior to case closure; follow-up measures at case closure are not feasible for the purposes of this study. Instead a follow-up study examining the employment outcomes of the individuals in this study will be conducted at a later date.

Generalizability of Results. Generalizability is often a weakness of field research (Babbie, 1995). This particular study is limited to persons with disabilities in Michigan who have attended orientation at Michigan Jobs Commission - Rehabilitation Services during a 5 month period in 1998. An assumption is being made that these individuals are similar to other individuals who apply for services in the state of Michigan, who have applied for services in the past, or who will in the future. In an attempt to strengthen this aspect of the study, the use of two different control groups were used to improve the generalizability of the results. In addition, because the public program is standardized across the nation simply by the fact that each agency is governed by federal regulations (Wright, 1980), it is reasonable to expect that the results from this study would generalize to other states in the nation as well. In addition, further standardization is achieved within the State of Michigan by the fact that the public rehabilitation agency is further governed by state policies, making a stronger case for the generalizability of study results to all district MJC-RS offices in the state of Michigan.

It is important to note that an additional caution when considering generalizability of these results to different geographic locations is necessary when considering the use of the TSCS:2 and the construct of self-concept. Research has indicated that Adult Form respondents on the TSCS:2 from the Midwest tend to be less self-critical than respondents from other areas (Fitts & Warren, 1996). However, performance of individuals on all other areas of the TSCS:2 from different U.S. geographical areas is quite similar (Fitts & Warren, 1996).

Implications of Findings

Implications for Practice. The results of this study indicate that, contrary to the opinion of several authors (e.g. Blascovich & Tomaka, 1991), self-concept and related constructs may not be as stable and as difficult to change as once thought. If this is the case, when we consider that self-concept is considered by some as the most effective single predictor of rehabilitation outcomes (Kaplan & Questand, 1981), this study opens the door to several important possibilities and could influence and change the way rehabilitation and the process of rehabilitation is conducted. Possible influences include changing service and service delivery methods in ways that incorporate or take into consideration client self-concept and improving client self-concept.

One of the most important research needs of the rehabilitation profession is in the area of process and outcome research. Rehabilitation professionals often provide an array of services for individuals with disabilities, yet have little or no evidence regarding which

services or parts of the rehabilitation process are most effective in helping the individual to achieve a successful rehabilitation outcome. Past research has shown the importance of self-concept in achieving successful rehabilitation outcomes; this study has indicated not only that self-concept can be improved in persons with disabilities; but also provides evidence that participation in the CLEO program can result in an increase in self-concept in general and also in specific areas of self-concept. Therefore, it is suggested that based on the results of this study; client self-concept, improving client self-concept, and services which may impact them are some of the areas the rehabilitation practitioner should focus their energies.

Agency Implications: Related to implications for practice are policy and public agency implications. Implementation of the CLEO program in public rehabilitation agencies could be a direct response to policy, which has mandated that agencies develop a rehabilitation system which is conducive to consumer choice, consumer involvement, and which results in the empowerment of persons with disabilities within the rehabilitation process. Giving an individual the opportunity to be involved or make choices in the rehabilitation process is not the same as giving them the skills to do so. Websters dictionary indicates that to empower someone is to "give the ability to do, act or produce" (Guralnik, 1980, p.1116). Empowerment of persons with disabilities is the foundation of the CLEO program. The program centers around teaching skills such as problem solving, decision making and communication skills, which are skills needed in order for any individual to become actively and effectively involved in their rehabilitation program. Given that 100% of the individuals who participated in the CLEO program felt that their

skills in each of these areas had improved, implementation of this program could be an effective way to address the issue of consumer involvement for the public agency.

Implications for Education: This study also has implications for rehabilitation counselor education. If self-concept is the most effective single predictor in successful rehabilitation outcomes, and it can be influenced by practitioners, then skills related to these concepts should be incorporated into the curriculum. Obviously this could be emphasized in courses including counseling theories, counseling practice, group counseling and internship. Interestingly, client self-concept is not often a large consideration in courses such as job placement and employer development. The results of this study may also influence curricula in these areas.

Implications for Further Research: There are several implications for further research based on the results of this study. First, replication of this study is very important. It is necessary that additional research repeating this study with a different group of individuals with disabilities be conducted to see if the same results are produced. Replication should take place not only with a different group of clients in the public rehabilitation system, but also in different settings (hospital, private-for- profit, private non-profit, school to work transition programs). Replications involving larger sample sizes and across various geographic areas would also be important.

In addition, it should be noted that the individual teaching the CLEO program is a very talented teacher. It would also be important that this study be replicated using a different instructor to determine to what extent the treatment effects are actually

instructor effects.

Follow-up studies in two different areas are also suggested. Additional research on individuals who participate in CLEO should be conducted to determine levels of self-concept at various points after the CLEO program has ended to gain a better understanding regarding the sustainability of treatment effects. In addition, it is very important that a follow-up study be conducted regarding the individuals in the final sample of this study and employment outcomes. It will be important to establish if those with higher self-concept scores achieved more successful rehabilitation outcomes, (e.g., Individuals who are able to successfully obtain and maintain employment) and whether those in the treatment group did better than those in the control group in regard to rehabilitation outcomes.

Further examination of the possible moderator variables found in this study would also be informative. Understanding the relationship between a number of different variables and self-concept outcomes for persons with disabilities could further inform practice and ultimately enable more individuals with disabilities to become successfully employed.

Based on the findings in this study, it is recommended that efforts be undertaken to develop a self-concept scale which primarily addresses work self-concept separate from academic experience and academic abilities. This type of scale could assist in having a clearer understanding regarding client self-concept in regard to work and employment. It is possible that a self-concept scale specific to work could also be used to identify specific areas of work that the individual is most and least comfortable with,

consequently allowing for those areas to be specifically addressed with the client.

Similar research designed for persons who are lower functioning than the individuals represented in this study is also important. Determining appropriate curriculum and instruments for this type of research would be important aspects of this research.

Conclusions

The purpose of this study was to provide information regarding self-concept and self-concept change in persons with disabilities; with the ultimate goal of identifying and developing strategies which are effective in facilitating, increasing and improving employment outcomes for persons with disabilities. Specifically, this study examined the effects of an intervention designed to improve client self-concept in regard to employment and job seeking.

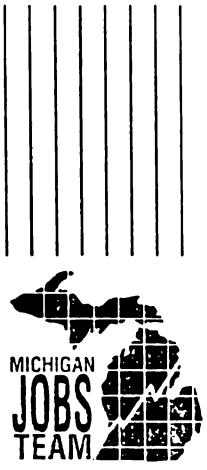
Although there was no significant change or growth in regard to the Academic/Work self-concept, change was in the expected direction. In addition, the question of the appropriateness of using this particular scale to measure self-concept specifically related to work with individuals with disabilities has been identified in this study.

Results of this study have shown that self-concept of persons with disabilities can be improved and that participation specifically in the Comprehensive Labor and Employment Opportunities (CLEO) program can result in that improvement. When the importance of self-concept in regard to rehabilitation outcomes is considered, these

results may be of great significance to rehabilitation practice, rehabilitation counselor education, and for future rehabilitation research.

APPENDICES

APPENDIX A



A Partnership Toward Employment
with Michigan Rehabilitation Services

This brochure was written to let you know how Michigan Rehabilitation Services (MRS) can help you become employed or keep a job you may already have. MRS is part of a state and federal partnership that has provided services for Michigan citizens with disabilities for 75 years.

If you have a disability that makes it difficult for you to work, MRS may be able to help you prepare for, find, and keep a job.

MRS is part of the Michigan Jobs Commission and has 33 offices throughout the state.

Getting Acquainted

If you are thinking about applying for MRS services, you might ask yourself the following questions:

- Am I interested in working?
- Do I have a physical or mental disability? Some examples are amputation, learning problems, cerebral palsy, heart disease, emotional problems, spinal cord injury, and substance abuse.
- Does my disability cause problems for me in preparing for a job, finding a job, or keeping a job?
- Do I need MRS assistance to help me prepare for or find a job?

If you answered yes to all of these questions, you may be eligible for MRS services. To find out, you will need to complete an application. A friend, family member, or MRS representative can help you complete an application if you need assistance.

Afterward, you will be teamed with a vocational rehabilitation counselor trained to assist people who have disabilities. You and your counselor will discuss your abilities, needs, and interests.

When you apply for services, you will be given a copy of the brochure, "Your Rights and Responsibilities as a Client of Michigan Rehabilitation Services."

Becoming Eligible

Your counselor will determine if you are eligible for services after talking with you and gathering information about your disability and work capabilities. This information will also help you and your counselor plan the services you will need to get or keep a job.

Sometimes additional evaluations are needed to identify your interests, abilities, and barriers to employment. These may include medical examinations, vocational testing, or work evaluations.

Your eligibility will be decided within 60 days of the date you apply for MRS services unless your counselor recommends a more lengthy evaluation.

Planning for Services

After you have been determined eligible, you and your counselor will work as partners in selecting a job goal and developing a plan to achieve your goal. This plan is known as your Individualized Written Rehabilitation Program (IWRP). It describes the steps,

(Please continue on other side)

services, and service providers—including MRS—that will be needed to achieve your job goal.

MRS services may include:

- Training, such as adult education; trade, technical, or business school; college; or on-the-job training
- Physical aids, such as hearing aids, artificial limbs, braces, and other medical services
- Job placement assistance, such as job leads, help with filling out an application, and interviewing
- Computer and other assistive technology and accommodations to help you in training and at work
- Tools and equipment, including licenses, in order for you to go to work or start a small business
- Support services, such as interpreters, readers, transportation, and personal assistance

Your counselor may arrange for you to use the services of other agencies that can help in your rehabilitation. You also may be asked to pay part of your rehabilitation costs if you can.

Working Together

How long your rehabilitation program will take depends on your disability, the job you are preparing for, and the type of services you will need. Your counselor will provide you with the information and guidance you will need to make informed choices about your rehabilitation program.

You can help make sure your rehabilitation is a success by:

- Keeping all appointments and arriving on time
- Being honest about your feelings and needs
- Asking questions if you don't understand something
- Carrying out your responsibilities as described in your IWRP
- Letting your counselor know about any changes in your address, telephone number, or other circumstances

Getting a Job

Getting a job, of course, is the most important step in your rehabilitation program. Your counselor will help you meet that goal by providing you with job leads and information on how to get and keep a job.

Your counselor may also contact you after you have started work to help you and your employer make any necessary adjustments and to be certain everything is going well before your case is closed.

If you need more services to help you keep your job, your counselor will try to arrange them.

Counselor's Name

Counselor's Telephone Number

May 1998; RA 6038; 4882-5708. Cost of printing 50,000: $1,182 at $0.02 a copy.

APPENDIX B

APPENDIX B

COMPARISON OF CLIENT DEMOGRAPHIC DATA
OF TREATMENT AND CONTROL DISTRICT OFFICES
Fiscal Year 1997 Data

Treatment District Office (TDO)	Control District Office (CDO)	
	TDO	CDO 1	CDO 2
Number of closures - all statuses:	689	592	443
Number of clients served: (Not including 00 and 88)	1,766	1,497	1,104
Number of cases closed 26:	303	233	171
Number of cases closed 28:	143	151	144
Number of cases closed 30:	98	83	82
Number of black clients served:	319 (18.1%)	286 (19.2%)	201 (18.4%)
Number of other minority clients:	34 (1.9%)	26 (1.7%)	12 (1.1%)
Percentage of female clients served:	826 (46.8%)	693 (46.5%)	486 (44.6%)

Status 00 is a case status which represents a referred individual who has not applied for services.

Status 88 is a case status which represents an individual with an 00 case who did not apply for services and whose case was closed.

Status 26 is a case status which represents an individual whose case was closed 'rehabilitated', meaning the individual was employed successfully for a minimum of 60-90 days and closed as employed.

Status 28 represents a case closed 'not rehabilitated' and was closed after an IWRP (Individualized Written Rehabilitation Program) was written.

Status 30 represents a case closed 'not rehabilitated' and was closed before the IWRP was written.

APPENDIX C

APPENDIX C

SCRIPT TO RECRUIT VOLUNTEERS FOR CLEO PROGRAM

Hi I'm Dr. Lynn Brown I'm going spend a few minutes introducing myself to you and you to the CLEO Program. The CLEO Program is a program which is designed to improve your employment potential and how successful you believe you will be in the labor force. Some of the topics we'll be discussing are interviewing skills, job seeking skills, and skills in the areas of problem solving, decision-making and communication.

The CLEO Program is an 18 hour program (Phase I meets...Phase II..) at MJC-RS and is free to clients of MJC-RS. The program is taught by myself and Jodi Saunders. Jodi and I are counselors and also are dealing with our own disabilities. We have used our training as counselors and our personal experience with disability to developed a program specifically designed to address the issues that we as people with disabilities often must address when entering or re-entering into employment.

We'll be talking about (brief description of topic areas)

I'm going to pass out a sign up sheet and while I'm doing that I'll be happy to address questions you may have. Here's the sheet, make sure you put your name down with a contact phone number because someone will be calling to remind you, also take the program flyer. Jodi will be talking with each of you for a few minutes either before or directly after your intake interview today.

I look forward to seeing all of you in class. Thanks a lot.

APPENDIX D

APPENDIX D

SCRIPT

RECRUITING FOR VOLUNTEERS

Introduce self and explain that a different district office of MJC-RS in another part of the state is trying to evaluate the effects of a program they're providing. Then something like this: "In order to do that, that office is asking for volunteers from other offices to help. If you are willing to help out, we're asking that you answer some questions that will take you about 15 minutes today, and that you answer these same questions in a couple months."

Whenever it is convenient for you to administer the questionnaire (individually or in groups is fine), the procedure is as follows:

Introduce self

We would like you answer a few questions, which will take approximately 15 minutes.

I am going to read some information about what we are asking for.

Customer Service is very important to us so we are trying to help a different district office evaluate how helpful a program is for persons with disabilities. In order to do that, we need to ask you some questions to get information. We will ask you those questions now, and the same questions once more in a couple months. We are evaluating the program in order to find out how helpful the program is to persons with disabilities and the information you provide will help do that.

In order to get an idea of how helpful the program is to people with disabilities, we will need to take a look at the information you are providing us, along with basic demographic information (for instance, age, male or female).

We would like your permission to take this information and study the results. It is VERY important that you understand that this information will be kept strictly confidential. Your individual counselor will not be given this information unless you choose to release it to them.

If you are interested in the results of this study you may contact Jodi L. Saunders after the study has been completed.

I am going to pass out two forms and explain them.
(Pass out consent form and questions.)

The first form to look at is the consent form. In the past others have found it helpful for me to read this as they follow along. Would you like me to do this? (If anyone is interested, read aloud to the group)Please fill out the information and date the form. This gives us permission to collect the information. After you complete this form, please set it aside. We will collect both forms together. If you need to ask a question or need help, please raise your hand.

Please look at the information form

I Will Read the Instructions While You Follow Along

The I.D. number is the inked number at the top, which should be the same as the one on your consent form.

(Please note that education is highest COMPLETED)

GED = 12

College: 13 = 14 =

(Determine if Instructions are Fully Understood and Indicate Answering the Questions is Not Timed.

I would like to encourage Truthful and Straight forward Answers and please remember it will remain confidential.

Please Do Not Talk or Share Your Information with Your Neighbor

Give Only One Answer to Each Item - If you are unsure, answer according to what is most Generally True or Recently True.

Complete both sides of the form and bring them to me when you are done.

Thank you very much for your time and assistance.

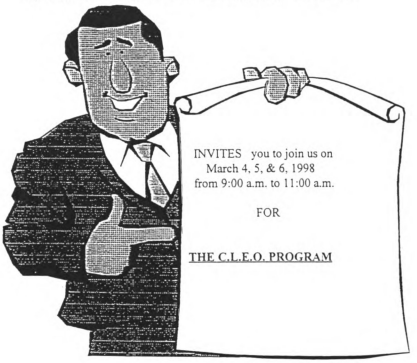
Scan Each Information Sheet for Blank Items or More Than One Answer

(Verify form #'s match)

APPENDIX E

APPENDIX E

MICHIGAN REHABILITATION SERVICES
and
Lynn Brown, Ed.D. and Jodi L. Saunders, M.A., C.R.C., L.P.C.



Take this opportunity to:

- Become more self-empowered
- Learn how to make decisions
- Practice responsibility & self determination
- Increase your self-concept

Whether you are looking for your first job, or a chance to find a better employment opportunity.....

THE COMPREHENSIVE LABOR AND EMPLOYMENT OPPORTUNITIES PROGRAM CAN HELP!!

APPENDIX F

APPENDIX F

MICHIGAN JOBS COMMISSION
3615 W ST JOSEPH ST
LANSING, MICHIGAN 48917
PHONE 517 334 6592
TDD 517 334 6597
FAX 517 334 6249
CUSTOMER ASSISTANCE: 517 373 9808
HTTP //WWW MJC STATE MI US

WELCOME TO THE CLEO PROGRAM

March 26, 1998

Dear

We are pleased that you have decided to participate in the CLEO (Comprehensive Labor and Employment Opportunities) program. You signed up for the program which begins on Wednesday, April 1, 1998 at 9:00 a.m. You are scheduled to attend April 1, 2, and 3 from 9:00 a.m. to 11:00 a.m. at MJC-RS Lansing District Office.

We are looking forward to seeing you in class in a few days!

Sincerely,

Jodi Saunders

Lynn Brown

MICHIGAN JOBS COMMISSION
3815 W ST JOSEPH ST - SUITE A
LANSING, MICHIGAN 48917
PHONE 517 334 6592
TDD 517 334 6597
FAX 517 334 6249
CUSTOMER ASSISTANCE 517 373 9808
HTTP://WWW.MJC.STATE.MI.US

August 14, 1998

FIELD(Name)
FIELD(Address)
FIELD(City, State, Zip)

Dear FIELD(Salutation):

We would like to welcome you back to the CLEO Program, **Phase II.** The first session will begin on Monday, April 20, 1998 from 11:30 a.m. - 1:00 p.m. Following are the dates you will need to attend after the 20th .

Monday, April 20, 1998	-	11:30 a.m. - 1:00 p.m.
Monday, April 27, 1998	-	11:30 a.m. - 1:00 p.m.
Monday, May 04, 1998	-	11:30 a.m. - 1:00 p.m.
Monday, May 11, 1998	-	11:30 a.m. - 1:00 p.m.
Monday, May 18, 1998	-	11:30 a.m. - 1:00 p.m.
Monday, June 01, 1998	-	11:30 a.m. - 1:00 p.m.
Monday, June 08, 1998	-	11:30 a.m. - 1:00 p.m.
Monday, June 15, 1998	-	11:30 a.m. - 1:00 p.m.

We are looking forward to seeing you again.

Sincerely,

Jodi Saunders Lynn Brown

MICHIGAN JOBS COMMISSION
3815 W. ST. JOSEPH ST.
LANSING, MICHIGAN 48917
PHONE: 517.334.6592
TDD: 517.334.6597
FAX: 517.334.6249
CUSTOMER ASSISTANCE: 517.373.9808
HTTP://www.MJC.STATE.MI.US

DATE

FIELD(Title) FIELD(First Name) FIELD(Last Name)
FIELD(Address)
FIELD(CityState)

Dear FIELD(Title) FIELD(Last Name):

We would like to thank you for agreeing to help us learn more about better ways to serve persons with disabilities by participating in our study. We appreciate your participation and thank you for completing the questionnaire when you attended orientation.

It's now time to fill out the questionnaire for the last time! Your input is very important, and we would like to remind you that it will take no longer than 30 minutes. You have been scheduled to do this on ***MONDAY, JUNE 15, at 3:30.*** Please ask to see Dawn when you arrive.

Thank you once again for your participation - it is truly appreciated.

Sincerely,

Jodi L. Saunders, M.A.
Rehabilitation Counselor

MICHIGAN JOBS COMMISSION
3815 W. ST. JOSEPH ST.
LANSING, MICHIGAN 48917
PHONE: 517.334.6592
TDD: 517.334.6597
FAX: 517.334.6249
CUSTOMER ASSISTANCE: 517.373.9808
HTTP://WWW.MJC.STATE.MI.US

June 15, 1998

Dear

You filled out a survey form at Rehabilitation Services. In order to complete our research for the CLEO Program, we need another survey form completed by you. It is very important for us to have this information and your assistance is greatly appreciated.

Please fill out the survey form enclosed and return it in the envelope provided.

Thank you very much for your assistance and taking the time to complete this.

Sincerely,

Dawn McConnell
Lansing District Rehabilitation Services

ENCLOSURES

APPENDIX G

APPENDIX G

CLEO EVALUATION

Date _____ Name _____

Please take a few minutes to answer the following questions. This will assist us in providing a program that will best meet the needs of persons with disabilities. **Thank you!**

Please circle the number (1-5) or word (Yes or No) which most accurately represents your feelings:

Communication Skills

1. How useful was it to you, to learn about communication skills?

1	2	3	4	5
not at all		Somewhat		very

2. Do you feel your communication skills have improved?

1	2	3	4	5
not at all		Somewhat		very

3. How confident are you regarding your communication skills?

1	2	3	4	5
not at all		Somewhat		very

4. Is this level of confidence an improvement from when you started the CLEO program?

1	2	3	4	5
not at all		Somewhat		very

5. Did you complete the homework assigned for communication skills? No Yes

6. Do you think the instructor(s) was/were knowledgeable in this area? No Yes

Problem Solving Skills/Conflict Resolution

7. How useful was it to you, to learn about problem solving skills?

1	2	3	4	5
not at all		Somewhat		very

8. Do you feel your problem solving skills have improved?

1	2	3	4	5
not at all		Somewhat		very

9. How confident are you regarding your problem solving skills?

1	2	3	4	5
not at all		Somewhat		very

10. Is this level of confidence an improvement from when you started the CLEO program?

1	2	3	4	5
not at all		Somewhat		very

11. Did you complete the homework assigned for problem solving skills? No Yes

12. Do you think the instructor(s) was/were knowledgeable in this area? No Yes

Social Skills

13. How useful was it to you, to learn about social skills?

1	2	3	4	5
not at all		Somewhat		very

14. Do you feel your social skills have improved?

1	2	3	4	5
not at all		Somewhat		very

15. How confident are you regarding your social skills?

1	2	3	4	5
not at all		Somewhat		very

16. Is this level of confidence an improvement from when you started the CLEO program?

1	2	3	4	5
not at all		Somewhat		very

17. Did you complete the homework assigned for social skills? No Yes

18. Do you think the instructor(s) was/were knowledgeable in this area? No Yes

Job Seeking Skills

19. How useful was it to you, to learn about job seeking skills?

1	2	3	4	5
not at all		Somewhat		very

20. Do you feel your job seeking skills have improved?

1	2	3	4	5
not at all		Somewhat		very

21. How confident are you regarding your job seeking skills?

1	2	3	4	5
not at all		Somewhat		very

22. Is this level of confidence an improvement from when you started the CLEO program?

1	2	3	4	5
not at all		Somewhat		very

23. Did you complete the homework assigned for job seeking skills? No Yes

24. Do you think the instructor(s) was/were knowledgeable in this area? No Yes

25. **Interview Skills**

26. How useful was it to you, to learn about interview skills?

1	2	3	4	5
not at all		Somewhat		very

27. Do you feel your interview skills have improved?

1	2	3	4	5
not at all		Somewhat		very

28. How confident are you regarding your interview skills?

1	2	3	4	5
not at all		Somewhat		very

29. Is this level of confidence an improvement from when you started the CLEO program?

1	2	3	4	5
not at all		Somewhat		very

30. Did you complete the homework assigned for interview skills? No Yes

31. Do you think the instructor(s) was/were knowledgeable in this area? No Yes

Please provide as much information as you can regarding the following questions:

Please tell us what was **most** helpful to you in the CLEO program: (Mention as many things as you would like) _____

_____

_____

_____

_____

Please tell us what was **least** helpful to you in the CLEO program: (Mention as many things as you would like) _____

_____

_____

_____

_____

Would you recommend any changes in the program? No Yes

If so, what changes would you recommend? _____

_____(Continue on back if necessary)

Would you recommend this program to others? No Yes

Why? _____

Anything else you think we should know? _____

_____

_____

Next Page

Thank you for your participation.

If you are willing to participate in a follow up study, please put your name, address, and phone number where you can be reached below.

Name: _____

Phone: _____

Address: _____

_____

_____

_____

☐ Please check this box if you are willing to release the results of your questionnaires to your counselor to assist you and your counselor with addressing any additional issues which would be beneficial to your rehabilitation program.

Thank you once again.

Good luck with your vocational and rehabilitation goals!

APPENDIX H

PLEASE DO NOT WRITE IN THIS AREA

IMPORTANT: Enter this number on Transmittal Form when submitting for scoring.

Reserved for WPS use only

wps. TEST REPORT™

Western Psychological Services • 12031 Wilshire Blvd. • Los Angeles, CA 90025-1251

Adult Form

TSCS:2 Answer Sheet

W. H. Fitts, PhD, and W. L. Warren, PhD

Directions

Use only a black-leaded pencil (No. 2 or softer). Make dark, heavy marks that fill the circles. If you want to change an answer, erase your first mark. Then fill in the circle that shows your new choice. Do not make stray marks on any page of this Answer Sheet.

Correct ● ● Incorrect ⊙ ⊗ ⊘

First fill in the background information. For *ID Number*, *Age*, *Administration Date*, and *Examiner ID Number*, write the numbers in the boxes above the circles, then darken the circles. If you don't know your ID number or the examiner's, ask your examiner about them. Read each item with care. Then fill in the circle that shows your answer. Fill in only one circle for each item.

This scale asks you to describe how you feel about yourself. There are no right or wrong answers, so please just describe yourself as honestly as you can. When you are ready to begin, read each statement and decide how well it describes you according to the scale below. Read each statement carefully. Then fill in the circle that shows your answer. Fill in only one circle for each statement, using this scale:

Answer 1 if the statement is ALWAYS FALSE.
Answer 2 if the statement is MOSTLY FALSE.
Answer 3 if the statement is PARTLY FALSE AND PARTLY TRUE.
Answer 4 if the statement is MOSTLY TRUE.
Answer 5 if the statement is ALWAYS TRUE.

ID Number

REQUIRED Age

Administration Date: Month | Day | Year

Gender: ○ Male ○ Female

Grade/Years of Education Completed: ○ <7 ○ 7 ○ 8 ○ 9 ○ 10 ○ 11 ○ 12 ○ 13 ○ 14 ○ 15 ○ 16 ○ >16

Ethnicity: ○ Asian ○ Black ○ Hispanic ○ Native American ○ White ○ Other

Examiner ID Number

Length of Form (TO BE COMPLETED BY EXAMINER ONLY): ○ Long ○ Short

SAMPLE

Examiner's Name: ____________________

1 = ALWAYS FALSE 2 = MOSTLY FALSE 3 = PARTLY FALSE AND PARTLY TRUE 4 = MOSTLY TRUE 5 = ALWAYS TRUE

There are no right or wrong answers. Just answer as accurately as possible. Please answer ALL items.

1. I am an attractive person. ①②③④⑤
2. I am an honest person. ①②③④⑤
3. I am a member of a happy family. ①②③④⑤
4. I wish I could be more trustworthy. ①②③④⑤
5. I do not feel at ease with other people. ①②③④⑤
6. Math is hard for me. ①②③④⑤
7. I am a friendly person. ①②③④⑤
8. I am satisfied with my moral behavior. ①②③④⑤
9. I am not as smart as the people around me. ①②③④⑤
10. I do not act the way my family thinks I should. ①②③④⑤
11. I am just as nice as I should be. ①②③④⑤
12. It is easy for me to learn new things. ①②③④⑤
13. I am satisfied with my family relationships. ①②③④⑤
14. I am not the person I would like to be. ①②③④⑤
15. I understand my family as well as I should. ①②③④⑤
16. I despise myself. ①②③④⑤
17. I don't feel as well as I should. ①②③④⑤
18. I do well at math. ①②③④⑤
19. I am satisfied to be just what I am. ①②③④⑤
20. I get along well with other people. ①②③④⑤

Continue on back unless you have been instructed to stop at Item 20.

W-320D

AUTHORIZED

1 = ALWAYS FALSE 2 = MOSTLY FALSE 3 = PARTLY FALSE AND PARTLY TRUE 4 = MOSTLY TRUE 5 = ALWAYS TRUE

There are no right or wrong answers. Just pick the answer that says how you feel. Please answer ALL items.

21.	My body is healthy.	1	2	3	4	5
22.	I am a decent sort of person.	1	2	3	4	5
23.	I'm a cheerful person.	1	2	3	4	5
24.	I'm not important at all.	1	2	3	4	5
25.	My family will always help me.	1	2	3	4	5
26.	I am a friendly person.	1	2	3	4	5
27.	Boys like me.	1	2	3	4	5
28.	I don't always tell the truth.	1	2	3	4	5
29.	I get angry sometimes.	1	2	3	4	5
30.	I have lots of aches and pains.	1	2	3	4	5
31.	I am a sick person.	1	2	3	4	5
32.	Math is hard.	1	2	3	4	5
33.	I have a lot of self-control.	1	2	3	4	5
34.	I'm not a nice person.	1	2	3	4	5
35.	I am not loved by my family.	1	2	3	4	5
36.	Girls like me.	1	2	3	4	5
37.	I'm mad at the whole world.	1	2	3	4	5
38.	Once in a while I think of things too bad to talk about.	1	2	3	4	5
39.	Sometimes when I am not feeling well, I get cranky.	1	2	3	4	5
40.	I don't want to change the way I look.	1	2	3	4	5
41.	I'd like to change some part of my body.	1	2	3	4	5
42.	I think I do the right thing most of the time.	1	2	3	4	5
43.	I understand what I read.	1	2	3	4	5
44.	I wish I could be more trustworthy.	1	2	3	4	5
45.	I know my family as well as I should.	1	2	3	4	5
46.	I'm as friendly as I want to be.	1	2	3	4	5
47.	I do not like everyone I know.	1	2	3	4	5
48.	Sometimes I laugh at a dirty joke.	1	2	3	4	5
49.	I shouldn't tell so many lies.	1	2	3	4	5
50.	I'm as smart as I want to be.	1	2	3	4	5
51.	I should love my family more.	1	2	3	4	5
52.	I'm not as smart as the other children in my class.	1	2	3	4	5
53.	It's easy for me to do a good job on my homework.	1	2	3	4	5
54.	I am a bad person.	1	2	3	4	5
55.	I should get along better with other people.	1	2	3	4	5
56.	Sometimes I feel like swearing.	1	2	3	4	5
57.	I take good care of my body.	1	2	3	4	5
58.	I'm often clumsy.	1	2	3	4	5
59.	I sometimes do very bad things.	1	2	3	4	5
60.	I do things without thinking about them first.	1	2	3	4	5
61.	I try to be fair with my friends and family.	1	2	3	4	5
62.	I do what my parents want me to do even when I don't agree with them.	1	2	3	4	5
63.	I don't forgive other people easily.	1	2	3	4	5
64.	I'm not good at sports and games.	1	2	3	4	5
65.	I sometimes cheat.	1	2	3	4	5
66.	I solve my problems very easily.	1	2	3	4	5
67.	I fight with my family.	1	2	3	4	5
68.	I don't act the way my family thinks I should.	1	2	3	4	5
69.	Most people are good.	1	2	3	4	5
70.	I find it hard to talk with people I don't know.	1	2	3	4	5
71.	Sometimes I put off until tomorrow what I ought to do today.	1	2	3	4	5
72.	I know the answers to questions the teacher asks.	1	2	3	4	5
73.	I do what's right most of the time.	1	2	3	4	5
74.	I'm happy with the way I treat other people.	1	2	3	4	5
75.	I'll never be as smart as other people.	1	2	3	4	5
76.	I like to do math.	1	2	3	4	5

APPENDIX I

APPENDIX I

CONSENT FORM FOR PARTICIPATION

Your participation in this study is completely voluntary. You are under no obligation to participate in this study and whether or not you participate will in no way affect the services you receive from Michigan Jobs Commission Rehabilitation Services. You will participate in a program (CLEO Program) and be asked a variety of questions to determine the effectiveness of this program. You may choose not to participate at any time, and may also choose to not answer any question at any time.

I have freely consented to take part in a study on the CLEO (Comprehensive Labor and Employment Opportunities) Program being conducted by Jodi L. Saunders. I understand that the study involves determining the effectiveness of this program and that my participation in the study does not guarantee any beneficial effects for me.

The study has been explained to me and I understand the explanation that has been given me and what my participation will involve. I have agreed to complete the questionnaires described to me and give my permission for the use of data obtained from these questionnaires, surveys, interviews and demographic information (i.e. application form, MJC-RS Z10 form).

I understand that the data from this study will be maintained indefinitely to be used for conference presentation, published articles and for training in related areas. I have been assured that the results of this study will be held in strict confidence and that my identity will not be revealed. I understand that I am free to discontinue my participation in the study at anytime.

I understand that, if I have any questions regarding this research or are interested in the results I can contact additional information about the study after my participation is completed by contacting Jodi L. Saunders at (517) 334-6050.

Name (Please Print):_____

Signature:_____ Date:_____

Guardian (if appropriate): _____

APPENDIX J

RA-Z10/70 (Rev. 6/95)

☐ New *(Client Registration)*
☐ Correction

MICHIGAN JOBS COMMISSION
MICHIGAN REHABILITATION SERVICES

REFERRAL, ORIENTATION AND INTAKE DATA

I. Referral & Orientation

A. Soc. Sec. No. | B. Case | C. ADU | D. Status | E. Status Date (Mo. Day Yr.)

F. Last Name | G. First Name | H. M.I. | I. Coun. [a]

J. Address *(No. & Street)*

K. City | L. State | M. Zip Code *(+ Four)* | N. A. C. & Telephone No. | O. TDD | P. Co.

Q. Ref. Date (Mo. Day Yr.) | R. Ref. Source | S. Disab. | T. Sec. Disab.

II. Intake

A. Intake Date (Mo. Day Yr.)

B. Subprogram Code

C. Severity
(0) Not Reported
(1) Severe - SSDI
(2) Severe - SSI
(3) Severe - Disability Code
(4) Severe - Disab. + Qual. Cond.
(5) Severe - Functional Limit.
(9) Not Severe

D. Date of Birth (Mo. Day Yr.)

E. Sex
(1) Male
(2) Female

F. Race
(1) White
(2) Black
(3) Amer. Indian or Alaskan Native
(4) Asian or Pacific Islander

G. Multi-racial
(1) Yes
(2) No

H. Hispanic Origin
(1) Yes
(2) No

I. Marital Status
(1) Married
(2) Widowed
(3) Divorced
(4) Separated
(5) Never Married

J. Number of Dependents
0 - 9 or X

K. Highest Grade Completed
00 - 21 or XX

L. Public Assistance Types
(0) None
(1) AFDC
(2) Food Stamps Only
(3) General Assistance
(4) Medicaid Only
(5) SSI - Cash Payment
(6) SSI & AFDC
(7) SSI - Non-pay
(8) Type(s) Not Listed Above

M. Public Assistance Case No.

N. Living Arrangement
01-34

O. Special Medical Factors
(0) None
(1) TBI
(2) AIDS/HIV+
(3) Both

P. Veteran
(1) Yes
(2) No

Q. Covered by Med. Ins. w/ Hosp.
(1) Yes
(2) No

R. Med. Ins. w/ Hosp. Available through Employer
(1) Yes
(2) No

S. School Status
(0) Not in School

High School
(1) Special Ed./Vocational Ed
(2) Special Education
(3) Vocational Education
(4) Regular Education

Postsecondary
(5) Special Needs
(6) All Other

T. Worker's Compensation Status
(0) Not a Claimant
(1) Appeal Pending
(2) Claim in Litigation
(3) Receiving Cash Benefits
(4) Received Lump Sum Settlement
(5) Claim Denied

U. Primary Source of Support
(00) Current Earnings
(01) Family/Friends
(02) Private Relief Agency
(03) PA with Federal Funds
(04) PA without Federal Funds
(05) Tax-Supported Institution
(06) Worker's Compensation
(07) SSDI
(08) All Other Public Sources
(09) Private Non-Disab. Insurance
(10) Other Source or No Source

V. Work Status
(0) Not working (3) Self-Emp.
(1) Compet. Employ. (4) Unpd. Work
(2) Homemaker (5) Sheltered Emp.

W. Weekly Hours Worked
(00) Not Working
(01-80) Hours Worked

X. Weekly Cash Earnings
(To the nearest dollar)

Y. Other Income Source(s) and Monthly Amt(s)

	WC		PIM
	SSI		VA
	SSDI		PA
	Unemplymt.		Other

Prepared By | Date

Reference Codes

The following codes are provided for your reference.

See related Manual Items for specific information.

Referral Source Codes

Complete first two digits from the following listing:

- 1Ø College or university, including junior college
- 12 Vocational school, including business, trade, and other technical (public & private)
- 14 Elementary or high school (public and private)
- 16 School for the physically or mentally handicapped (public and private)
- 19 Other educational institution
- 2Ø Mental hospital (public and private)
- 22 Other chronic-condition or specialized hospital or sanitarium (public and private)
- 24 General hospital (public and private)
- 28 Cancer Clinical Demonstration Hospital
- 29 Other hospital or clinic (except public health clinic)
- 3Ø Rehabilitation facility (except Community Mental Health Center)
- 31 Independent Living Center
- 32 Community Mental Health Center
- 34 State Crippled Children's agency
- 38 Other public health dept., organization or agency (including public health)
- 39 Other private health organization or agency
- 4Ø Public welfare
- 44 Private welfare agency, including labor union welfare fund (and civil or community welfare organizations)
- 5Ø Social Security Disability Determination Unit
- 51 Social Security District Office
- 52 Workmen's compensation agency (federal and state)
- 53 State employment service
- 54 Selective Service system
- 55 State vocational rehabilitation agency
- 56 Correctional institution, court, or officer (federal, state, or local)
- 59 Other public organization or agency (including public official not representing above organizations or agencies)
- 6Ø Artificial appliance company
- 62 Employer (private)
- 69 Other private organization or agency
- 7Ø Self-referred person
- 72 Physician, not elsewhere classified
- 73 Annual Review of closed cases
- 79 Other individual, not elsewhere classified

See district/area/state listings for last two digits or use øø if none apply.

Highest Grade Completed

- XX Special education for reasons of mental retardation
- ØØ Did not complete any regular or special education
- Ø1-11 Enter the number which represents the grade completed
- 12 Graduated from high school or attained a GED
- 13 Has high school diploma or GED plus some college training but does not have a degree
- 14 Has an Associates Degree
- 15 Completed between 2 - 4 years of college but does not have a Bachelor's Degree
- 16 Has a Bachelor's Degree
- 17 Has a Bachelor's Degree plus additional college training but does not have a Master's Degree
- 18 Has a Master's Degree
- 19 Has a Master's Degree plus additional college training but does not have a Ph D.
- 2Ø Has a Ph.D.
- 21 Completed additional training beyond the Ph D. level such as medical school, specialization, etc.

Living Arrangement Codes

- 01 Public mental hospital
- 02 Private mental hospital
- 03 Psychiatric inpatient unit of a general hospital
- 04 Community Mental Health Center - Inpatient
- 05 Public institution for the mentally retarded
- 06 Private institution for the mentally retarded
- 07 Alcoholism treatment center
- 08 Drug abuse treatment center
- 09 School and other institution for the blind
- 10 School and other institution for the deaf
- 11 General hospital
- 12 Hospital or specialized facility for chronic illness
- 13 Institution for the aged
- 14 Halfway house
- 15 Correctional institution - Adult
- 16 Correctional institution - Juvenile
- 17 Foster care or group home
- 18 House - Alone
- 19 House - With spouse/children
- 20 House - With other relative(s) or live-in provider(s)
- 21 House - With non-relative(s)/non-provider(s)
- 22 Relative's house
- 23 Non-relative's house
- 24 Apartment - Alone
- 25 Apartment - With spouse/children
- 26 Apartment - With other relative(s) or live-in provider(s)
- 27 Apartment - With non-relative(s)/non/provider(s)
- 28 Room
- 29 Supported independent living residential facility
- 30 Transitional residential facility
- 31 Nursing home
- 32 School dormitory
- 33 Homeless
- 34 Other living arrangement

* *These codes are reserved for Independent Living cases only.*

APPENDIX K

RA-2910 (Rev. 4/97)

MICHIGAN JOBS COMMISSION
MICHIGAN REHABILITATION SERVICES

APPLICATION

Please Print

Date _____

SSN _____

CLIENT DATA

Name *(Last, First, Middle Initial)*			Date of Birth	Sex ☐ Male ☐ Female
Address *(No. & Street, Apt.)*		City	County	Zip Code
Area Code & Phone No. ( )	Do you have a Michigan Driver License? ☐ Yes ☐ No	Do you have a car, van or truck? ☐ Yes ☐ No > Means of transportation:		
Are you a previous MRS client? ☐ Yes > ☐ No	When did you last receive MRS services?		Which MRS office?	
Who referred you to MRS?		Disability	Cause of Disability	
How does your disability limit you?				
Are you covered by health insurance? ☐ Yes > ☐ No	Name of Insurance Company		Policy Holder	

MEDICAL DATA

Are you receiving treatment for your disability? ☐ Yes ☐ No

Who is providing treatment?	Address	Nature of Treatment
Family Doctor *(Name and address)*		Date last seen
Other doctors seen in the last 5 years *(Name and address)*		
Hospitalizations during the last 5 years *(Name, city, year and reason)*		

MEMBERS OF YOUR HOUSEHOLD

Your marital status ☐ Never Married ☐ Married ☐ Separated ☐ Divorced ☐ Widowed

Name	Relationship	Age	Name of Employer	Wage
1.				
2.				
3.				
4.				
5.				

SOURCES OF FINANCIAL ASSISTANCE *(which you are receiving)*

Source	Date assistance began	Monthly amount
1.		
2.		
3.		

BENEFIT INFORMATION

If you are receiving *Workers Compensation*, who is the Insurance Carrier?	Date injured
If you are receiving *Social Security Disability Benefits (SSDI)* on someone else's account, what is their SSA number?	
Other applications and/or claims you have pending	

EMPLOYMENT DATA *(List your last 3 jobs - Last job first)*

Employer Name 1.	Address *(No. & Street)*	City
Dates of Employment From: To:	Wages	Reason for Leaving
Job Duties		
Employer Name 2.	Address *(No. & Street)*	City
Dates of Employment From: To:	Wages	Reason for Leaving
Job Duties		
Employer Name 1.	Address *(No. & Street)*	City
Dates of Employment From: To:	Wages	Reason for Leaving
Job Duties		

VOLUNTEER WORK EXPERIENCE, HOBBIES, CLUBS, ORGANIZATIONAL ACTIVITIES, ETC.

EDUCATION AND TRAINING

Highest grade completed Date	Name of school	City and State
Degrees and certificates earned		Field of study
Have you earned a General Education Development Certificate *(GED)*? ☐ Yes ☐ No	Military training or experience	
Other training or job skills		

JOB & SERVICES

What kind of job would you like and what services are you requesting from MRS to help you get *(or keep)* it?

CONTACT PERSONS ***(Whom can MRS contact if MRS is unable to contact you?)***

Name 1.	Relationship to you	Area Code & Phone No. ( )
Address	City	Zip Code
Name 2.	Relationship to you	Area Code & Phone No. ( )
Address	City	Zip Code

COMMENTS OR OTHER INFORMATION

Your signature below means **you are applying for MRS services and have received the MRS Client Rights & Responsibilities brochure.**

Client Signature *(Parent or guardian, if applicable)*	Date
Counselor's Signature	Date

APPENDIX L

APPENDIX L

COUNSELOR DEMOGRAPHIC SURVEY

Age:_____ Gender: ☐ Male ☐ Female (Please check appropriate box)

Education: (Please indicate highest degree earned)

☐ MA/MS Rehabilitation Counseling

☐ MA/MS Related field

☐ MA/MS Other (Please specify):_____

☐ BA/BS Rehabilitation Counseling

☐ BA/BS Related field

☐ BA/BS Other (Please specify):_____

Credentials: (Please check ALL that apply)

☐ CRC ☐ CVE ☐ CDMS/CIRS ☐ CSW

☐ CCM ☐ NCC ☐ Other: (Please specify):_____

Are you a Licensed Professional Counselor? ☐ No ☐ Yes

How long (years and months) have you worked for MJC-RS? ____Years ____ Months

Have you worked in any other rehabilitation settings? (Please check ALL that apply):

☐ Private non-profit ☐ Private for Profit ☐ Other (Please specify): _____

How many years have you worked in the field of rehabilitation in all settings? _____

APPENDIX M

MICHIGAN STATE
UNIVERSITY

July 23, 1998

TO: Michael Leahy
355 Erickson Hall

RE: IRB#: 98-009
TITLE: IMPROVING THE EMPLOYMENT.SELF CONCEPT OF PERSONS WITH DISABILITIES: A FIELD BASED EXPERIMENT
REVISION REQUESTED: N/A
CATEGORY: 2-I
APPROVAL DATE: 01/23/98

The University Committee on Research Involving Human Subjects'(UCRIHS) review of this project is complete. I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the UCRIHS approved this project and any revisions listed above.

RENEWAL: UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Investigators planning to continue a project beyond one year must use the green renewal form (enclosed with the original approval letter or when a project is renewed) to seek updated certification. There is a maximum of four such expedited renewals possible. Investigators wishing to continue a project beyond that time need to submit it again for complete review.

REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please use the green renewal form. To revise an approved protocol at any other time during the year, send your written request to the UCRIHS Chair, requesting revised approval and referencing the project's IRB # and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.

PROBLEMS/ CHANGES: Should either of the following arise during the course of the work, investigators must notify UCRIHS promptly: (1) problems (unexpected side effects, complaints, etc.) involving human subjects or (2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of any future help, please do not hesitate to contact us at (517)355-2180 or FAX (517)432-1171.

Sincerely,

David E. Wright

David E. Wright, Ph.D.
UCRIHS Chair

DEW:bed

cc: Jodi L. Saunders

OFFICE OF
RESEARCH AND GRADUATE STUDIES

University Committee on Research Involving Human Subjects (UCRIHS)

Michigan State University
246 Administration Building
East Lansing, Michigan
48824-1046

517/355-2180
FAX 517/432-1171

APPENDIX N

APPENDIX N

Comparison of Control Groups

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
DIFACA.T	Between Groups	103.218	2	51.609	.985	.389
	Within Groups	1152.782	22	52.399		
	Total	1256.000	24			
DIFBHV.T	Between Groups	65.978	2	32.989	.821	.453
	Within Groups	884.182	22	40.190		
	Total	950.160	24			
DIFCON.T	Between Groups	72.604	2	36.302	.203	.818
	Within Groups	3927.236	22	178.511		
	Total	3999.840	24			
DIFFAM.T	Between Groups	180.663	2	90.331	3.000	.070
	Within Groups	662.377	22	30.108		
	Total	843.040	24			
DIFFG.T	Between Groups	21.345	2	10.672	.157	.855
	Within Groups	1491.695	22	67.804		
	Total	1513.040	24			

DIFIDN.T	Between Groups	40.283	2	20.141	.717	.499
	Within Groups	617.877	22	28.085		
	Total	658.160	24			
DIFINC.T	Between Groups	114.864	2	57.432	.380	.688
	Within Groups	3325.136	22	151.143		
	Total	3440.000	24			
DIFMOR.T	Between Groups	34.341	2	17.170	.252	.780
	Within Groups	1499.659	22	68.166		
	Total	1534.000	24			
DIFPER.T	Between Groups	22.014	2	11.007	.197	.822
	Within Groups	1227.986	22	55.818		
	Total	1250.000	24			
DIFPHY.T	Between Groups	202.508	2	101.254	1.396	.269
	Within Groups	1595.332	22	72.515		
	Total	1797.840	24			
DIFRD.T	Between Groups	71.858	2	35.929	1.020	.377
	Within Groups	774.782	22	35.217		
	Total	846.640	24			
DIFSAT.T	Between Groups	118.508	2	59.254	1.284	.297
	Within Groups	1015.332	22	46.151		
	Total	1133.840	24			

DIFSC.T	Between Groups	18.418	2	9.209	.121	.886
	Within Groups	1671.582	22	75.981		
	Total	1690.000	24			
DIFSOC.T	Between Groups	91.105	2	45.552	1.135	.340
	Within Groups	882.895	22	40.132		
	Total	974.000	24			
DIFTOT.T	Between Groups	57.895	2	28.947	1.061	.363
	Within Groups	599.945	22	27.270		
	Total	657.840	24			

APPENDIX O

APPENDIX O

Chi-Square Tests

Counselor Group * CRC Crosstabulation

Counselor Group	Has CRC?		Total
	No	Yes	
Control	6	3	9
Treatment	5	3	8
Total	11	6	17

Chi-Square Tests

	Value	df	Asymp.Sig (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.032	1	.858		
Fisher's Exact				1.000	.627
N of valid cases	17				

Counselor Group * Education Crosstabulation

Counselor Group	Education		Total
	MA Rehab	MA Related Field	
Control	3	6	9
Treatment	6	2	8
Total	9	8	17

Chi-Square Tests

	Value	df	Asymp.Sig (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.951	1	.086		
Fisher's Exact				.153	.109
N of valid cases	17				

Counselor Group * Gender Crosstabulation

Counselor in Group	Gender		Total
	Male	Female	
Control	1	8	9
Treatment	2	6	8
Total	3	14	17

Chi-Square Tests

	Value	df	Asymp.Sig (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.562	1	.453		
Fisher's Exact				.567	.453
N of valid cases	17				

Counselor Group * LLPC Crosstabulation

Counselor Group	Has LLPC?		Total
	No	Yes	
Control	8	1	9
Treatment	6	2	8
Total	14	3	17

Chi-Square Tests

	Value	df	Asymp.Sig (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.562	1	.453		
Fisher's Exact				.567	.453
N of valid cases	17				

Counselor Group * LPC Crosstabulation

Counselor Group	Has LPC?		Total
	No	Yes	
Control	4	5	9
Treatment	5	3	8
Total	9	8	17

Chi-Square Tests

	Value	df	Asymp.Sig (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.554	1	.457		
Fisher's Exact				.637	.399
N of valid cases	17				

APPENDIX P

APPENDIX P

Multivariate Analysis of Variance on all Outcomes Using Difference Scores

Outcome Variable	Mean Square	F	Sig.
Academic/Work	81.360	1.410	.241
Behavior	230.577	6.930	.011*
Conflict	44.955	.385	.093
Family	23.053	.657	.421
Faking Good (v)	139.373	2.407	.127
Identity	86.453	2.251	.140
Inconsistency (v)	14.902	.090	.766
Moral	120.375	2.183	.146
Personal	153.606	5.068	.029*
Physical	205.176	4.013	.050*
Response Distribution (v)	90.577	1.688	.200
Satisfaction	275.438	7.433	.009**
Self-Criticism (v)	14.452	.309	.581
Social	271.724	8.835	.005**
Total	211.504	6.302	.015*

(v) - Indicates a validity scale
* - Indicates $p \leq .05$
** - Indicates $p \leq .01$

APPENDIX Q

APPENDIX Q

Paired-Samples t-test - Level of Attendance

	Level of Significance			
Self-Concept Scale	Low	Medium	High	Optimal
Academic/Work	.441	.353	.235	.108
Behavior	.224	.121	.002**	.000**
Conflict	.939	.911	.930	.948
Family	.355	.427	.016*	.010**
Identity	.912	.288	.002**	.001**
Moral	.996	.158	.297	.105
Personal	.524	.064	.000**	.000**
Physical	.169	.174	.013*	.005**
Satisfaction	.263	.085	.004**	.001**
Social	.360	.116	.003**	.001**
Total	.471	.103	.003**	.001**

* Significance at .05

** Significance at .01

ANOVA's Low Attendance vs. Control Group

Self-Concept Scale	**F**	**Significance**
Academic/Work	.124	.728
Behavior	2.721	.112
Conflict	.162	.691
Family	.363	.553
Identity	.031	.911
Moral	.140	.711
Personal	.003	.958
Physical	2.629	.118
Satisfaction	2.652	.116
Social	2.108	.159
Total	1.078	.309

APPENDIX R

APPENDIX R

Participant Evaluations

Participant Evaluation of 'Communication Skills'

How useful was it to learn about Communication skills?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	3	9.1
More than somewhat	7	21.2
Very	17	51.5
Total	27	81.8
Missing	6	18.2
Total	33	100.0

Do you feel your Communication skills have improved?

Description	Frequency	Percent
Not at all	1	3.0
Less than somewhat	0	0.0
Somewhat	6	18.2
More than somewhat	13	39.4
Very	7	21.2
Total	27	81.8
Missing	6	18.2
Total	33	100.0

Participant Evaluation of Communication Skills

How confident are you regarding your communication skills?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	6	18.2
More than somewhat	15	45.5
Very	6	18.2
Total	27	81.8
Missing	6	18.2
Total	33	100.0

Is this level of confidence an improvement from when you started the CLEO program?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	5	15.2
More than somewhat	11	33.3
Very	11	33.3
Total	27	81.8
Missing	6	18.2
Total	33	100.0

Participant Evaluation of Problem Solving

How useful was it to learn about Problem Solving skills?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	3	9.1
More than somewhat	8	24.2
Very	16	48.5
Total	27	81.8
Missing	6	18.2
Total	33	100.0

Do you feel your Problem Solving skills have improved?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	5	15.2
More than somewhat	15	45.5
Very	7	21.2
Total	27	81.8
Missing	6	18.2
Total	33	100.0

Participant Evaluation of Problem Solving

How confident are you regarding your Problem Solving skills?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	4	12.1
More than somewhat	16	48.5
Very	7	21.2
Total	27	81.8
Missing	6	18.2
Total	33	100.0

Is this level of confidence an improvement from when you started the CLEO program?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	4	12.1
More than somewhat	15	48.5
Very	8	21.2
Total	27	81.8
Missing	6	18.2
Total	33	100.0

Participant Evaluation of Social skills

How useful was it to learn about Social skills?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	9	27.3
More than somewhat	8	24.2
Very	10	30.3
Total	27	81.8
Missing	6	18.2
Total	33	100.0

Do you feel your Social skills have improved?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	1	3.0
Somewhat	10	30.3
More than somewhat	12	36.4
Very	4	12.1
Total	27	81.8
Missing	6	18.2
Total	33	100.0

How confident are you regarding your Social skills?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	7	21.2
More than somewhat	10	30.3
Very	10	30.3
Total	27	81.8
Missing	6	18.2
Total	33	100.0

Is this level of confidence an improvement from when you started the CLEO program?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	1	3.0
Somewhat	7	21.2
More than somewhat	15	45.5
Very	4	12.1
Total	27	81.8
Missing	6	18.2
Total	33	100.0

Participant Evaluation of Job Seeking skills

How useful was it to learn about Job Seeking skills?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	4	12.1
More than somewhat	10	30.3
Very	13	39.4
Total	27	81.8
Missing	6	18.2
Total	33	100.0

Do you feel your Job Seeking skills have improved?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	8	24.2
More than somewhat	13	39.4
Very	6	18.2
Total	27	81.8
Missing	6	18.2
Total	33	100.0

How confident are you regarding your Job Seeking skills?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	9	27.3
More than somewhat	9	27.3
Very	9	27.3
Total	27	81.8
Missing	6	18.2
Total	33	100.0

Is this level of confidence an improvement from when you started the CLEO program?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	6	18.2
More than somewhat	13	39.4
Very	8	24.2
Total	27	81.8
Missing	6	18.2
Total	33	100.0

Participant Evaluation of Interview skills

How useful was it to learn about Interview skills?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	1	3 0
Somewhat	3	9.1
More than somewhat	8	24.2
Very	14	42.4
Total	26	78.8
Missing	7	21.2
Total	33	100.0

Do you feel your interview skills have improved?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	7	21.2
More than somewhat	11	33.3
Very	8	24.2
Total	26	78.8
Missing	7	21.2
Total	33	100.0

Participant Evaluation of Interview skills

How confident are you regarding your Interview skills?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	10	30.3
More than somewhat	10	30.3
Very	6	18.2
Total	26	78.8
Missing	7	21.2
Total	33	100.0

Is this level of confidence an improvement from when you started the CLEO program?

Description	Frequency	Percent
Not at all	0	0.0
Less than somewhat	0	0.0
Somewhat	7	21.2
More than somewhat	11	33.3
Very	8	24.2
Total	26	78.8
Missing	7	21.2
Total	33	100.0

APPENDIX S

APPENDIX S

Participants Report of Homework Completion

Topic Area	Homework Completed?	
	Yes	No
Communications Skills	22 (66.7%)	3 (9.1%)
Problem Solving Skills	24 (72.7%)	3 (11.1%)
Social Skills	21 (63.6%)	2 (22.2%)
Job Seeking Skills	19 (57.6%)	7 (21.2%)
Interview Skills	19 (57.6%)	7 (21.2%)

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