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THE RELATIONSHIP BETWEEN CAREER MATURITY AND LOCUS OF  
CONTROL IN COLLEGE STUDENTS

by  
Maryann Kimchick

A Thesis

Submitted in partial fulfillment of the requirements of the  
Masters of Arts Degree in School Psychology  
of Rowan University  
May 1, 1997

Approved by \_\_\_\_\_  
Dr. Roberta Dihoff

Date Approved 5/6/97

## ABSTRACT

Maryann Kimchick

The Relationship Between Career Maturity and Locus of Control  
in College Students

1997

Dr. Roberta Dihoff

Masters in School Psychology

The purpose of this study was to examine the relationship between locus of control in college students and career maturity. The sample consisted of 39 undergraduates attending a state college in New Jersey. Of the total sample, 5 were male, 34 were female. The mean age of the population was 18, with ages ranging from 18 to 24. The majority of the sample were in their first year in college. Locus of control was assessed with the Rotter Internal-External (I-E) scale and the Career Maturity Inventory Scale (CMI-As) was selected to measure Career Maturity. The data collected was analyzed using a series of Pearson product-moment correlation coefficients comparing scores on the Internal-External Scale, Career Maturity Inventory and the demographic questioner. T-Tests for paired differences at the .05 level of significance were also used to test the null hypothesis. The results of this study supported the hypothesis that college students with an internal locus of control will exhibit higher levels of career maturity than those with an external locus of control. There was also a significant relationship between career maturity and year in college.

## MINI-ABSTRACT

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## Table of Contents

	Page #
Chapter I	1
Need	2
Purpose	2
Hypothesis	2
Theory	2
Definitions	6
Assumptions	6
Limitations	6
Overview	7
Chapter II	
Introduction	8
Career Maturity	9
Locus of Control	15
Locus of Control & Career Maturity	16
Summary	21
Chapter III	
Sample	22
Measures	22
Design	24
Hypothesis	24
Analysis	25
Summary	25
Chapter IV	
Results	26
Chapter V	
Summary	28
Conclusions	29
Implication for future research	29
References	31
Tables	
4.1	26
4.2	27

## Chapter I

### Need

Predictors of career maturity have direct applications for counselors and educators. Research has clearly and consistently identified career maturity as an important variable in career development. This construct is defined as the readiness of an individual to make informed, age-appropriate career decisions and cope with developmental tasks (King, 1990; Savickas, 1984). A number of relationships between career maturity and various characteristics associated with effective development have been studied. Significant relationships have been reported between career maturity and academic achievement, self-esteem, self-efficacy, age, and locus of control (Luzzo, 1995).

The concept of locus of control was developed within the context of social learning theory. Locus of control refers to the perceived influence that one has on the attainment of reinforcement. It is also described as a dimension of personality; individuals perceive greater personal (internal) control, while others perceive the situation (external control) as more salient.

The relationship between locus of control and career development has been investigated by several researchers. An individual's locus of control was correlated with assessments of career maturity (Luzzo 1993). College students with an

internal locus of control are more likely to possess attitudes and exhibit skills indicative of higher levels of career maturity than students with an external locus of control.

Luzzo (1993) also contends that career counselors need to realize the importance of these variables to further understand motivational factors in students' career development. Other researchers report that an understanding of career motivation is important since it is related to a person's persistence and achievement in a career (Brown & Brooks 1990).

### Purpose

The purpose of this study is to examine the relationship between locus of control in college students and career maturity. This study is specifically designed to review current and past research on these variables and further define their significance and impact on the development of career maturity.

### Hypothesis

College students with an internal locus of control will exhibit higher levels of career maturity than those with an external locus of control.

### Theory

The concept of free will versus determinism is a philosophical problem which psychologists have not been able to solve. Psychological effects of individuals' perceptions of their freedom of choice is important in the study of personality. In *Beyond Freedom and Dignity*, Skinner (1971) contended that we must give up the illusion of freedom and admit that behavior is controlled by reinforcements.



According to the principles of operant reinforcement, external stimuli paired with rewards are responsible for behavior.

However, others contend psychological effects of individuals' perceptions of their freedom of choice has positive connotations and individuals do experience free will, or the perceived choice to engage in a number of actions or behaviors (Feshbach & Weiner, 1986).

In the field of personality, freedom and self-responsibility grew from the concept of locus of control, and a distinction between internal and external control (Rotter, 1966). Locus of control refers to the perceived influence that one has on the attainment of reinforcement. As a personality dimension, some persons perceive greater personal or internal control, while others perceive the situation as more salient or externally controlled. Rotter (1966) defined internal and external control as follows: When an event is interpreted or perceived as a result of luck, chance, fate, and under the control of others, the belief is labeled external control. However, if a person perceives an event as contingent upon their own behavior or characteristics, this belief is labeled internal control.

Rotter (1975) theorized that high internality is related to achievement and efforts to acquire information about one's future. In contrast, externally-oriented individuals are more apt to express unrealistic occupational aspirations, prefer to take chances rather than relying on their skills, and appear less able to cope with the demands of reality.

Contemporary theories of career development view vocational behavior as a continuing process of growth and learning. Social scientists have attached

considerable importance to individuals' psychosocial environment, developmental experiences, self-concept, career maturity, and locus of control as major determinants of the career process.

Gysbers (1984) reported that theories of career development began appearing in literature between the 1950's and 1960's. Researchers began to give broader and more comprehensive views of occupational choice and development over the life span. Social scientists began to view occupational choice as a developmental process. The terms "Career" and "Vocational Development" became popular. Furthermore, in the 1970's and 1980's, the definitions of career development became more encompassing. Gysbers (1984) defined career as encompassing a variety of personal choices related to an individual's social and personal behaviors. Thus, career development can be defined as dealing with one aspect of an individual's socialization. Crites (1969) defined this as "vocationalization" and Borow (1984) used the term "Occupational Socialization."

The role of locus of control in the career development domain has been defined by Taylor (1982) as follows: Individuals with internal locus of control perceptions view themselves as having more control over and personal responsibility for the direction of their lives than those with external locus of control. Internal individuals are more likely to take an active role in their education, vocational choices, decision making, and information gathering. External individuals, who are likely to feel themselves powerless to control events, may believe that vocational plans are influenced by chance factors and may fail to invest the time and resources in information gathering and vocational decision-making activities (Taylor, 1982).

Super's (1990) person-environments interactive model of the bases of career maturity provides a framework for analyzing career development and the influence of locus of control. According to the model, a variety of environmental and personal factors interact when determining career maturity. In terms of personality dimensions, locus of control and self-concept are explained in his model. He contends that individuals differ in their abilities and personalities, needs, values, traits and self-concepts. Furthermore, the career development process is ongoing, in which the development of the self-concept operates. During these stages, factors internal as well as external, influence the choices an individual makes (Super 1990).

Locus of control is specifically referred to in Super's Model. He contends that individuals with an internal locus of control are more likely to engage in specific career decision-making skills, activities, and attitudes that are indicative of higher levels of career maturity than individuals with an external locus of control.

According to Crites (1978), the level of career maturity is also important since "What takes place in the contacts between client and counselor depends upon the point the client has reached on the continuum of career development." The career life stage of the client must be determined for assessment of degree of maturity. The career counselor concentrates upon orientation and exploration for the individual who is immature. Counseling involves helping the client understand the social and personal factors of educational and vocational decisions. In contrast, a mature client involves assembly, review, and assimilation of relevant information for future decisions. In summary, the overall process of career development depends on the orientation, readiness, social and psychological variables of a client.

## Definitions

Career maturity - The readiness of an individual to make informed, age-appropriate career decisions and cope with career development tasks (Savickas 1984).

Locus of control - A construct, derived from Social Learning Theory (Rotter, 1954), which represents the generalized expectancy concerning the control one can exert over the consequences of his or her behavior. The central concept of this theory is that individuals differ in the extent to which they attribute the outcomes of their behavior reinforcement.

Career- A lifestyle concept that also involves a sequence of work or leisure activities, in which one engages throughout a lifetime (Crites, 1978).

## Limitations of the Study

The study did not take into account intelligence, socioeconomic status, previous educational experience and their effects on the relationships between the variables being investigated. In addition, the population was not a random sample and was limited to students attending a small college in New Jersey.

## Assumptions

The instruments used in this study are valid measures of the variables being investigated, and the participants have not had previous exposure to the CMI and

the Rotter scale. The sample will represent the general population and the test does not contain bias.

### Overview

A review of the literature will follow in Chapter II . This chapter will be divided into three sections. The first section will examine literature on career development. Rotter's work on locus of control will be reviewed in the second section, followed by a review of research examining the relationship between career maturity and locus of control. In Chapter III, the design of the study will be discussed.

## Chapter II

### Introduction

The concept of career development and counseling was largely unknown 30 years ago. Carter's (1940) conceptualization of the development of career attitudes in adolescence and Super's (1979) use of life stages in the analysis of career exploration and establishment were the first researchers to examine this developmental process from ninth grade into adulthood. During this time, career decision-making was viewed as a static event which occurred during high school when an adolescent did a self-assessment and then decided what to do. The consequences, success or satisfaction of the choice were seldom examined.

However, during the last 30 years, researchers have reported that the process of developing a career is an integral part of an individual's maturation process. An individual's ability to complete the process depends on the level of career maturity. The achievement of career developmental tasks leads to feelings of satisfaction and success with later developmental tasks (Super & Kidd, 1979).

Furthermore, predictors of career maturity have direct applications for counselors and educators. They need to realize the importance of these variables to further understand the students' motivational factors and characteristics regarding the process of career development. The first section of the literature review will examine career development, followed by the concept of locus of control and its relationship to career maturity.

## Career Maturity

Research on career maturity has been conducted by several researchers. Such studies include the Longitudinal Career Pattern Study ( Super, 1990, Crites 1974, Herr 1988), Project Talent (Flanagan, Shaycroft, Richards, & Claudy 1971) and the Career Development Study (Gribbons & Lohnes 1968). Each study examined variables related to career maturity in adolescence and adulthood.

The Career Pattern Study (CPS) under the direction of Donald E. Super, was a 20 year longitudinal survey that examined the vocational development of adolescents and young adults. The theoretical framework of the CPS was built on the concepts and principles of developmental psychology and self-theory. The central proposition of CPS was to test vocational development as a process of acquiring, clarifying, and implementing a self-concept through preparation of work (Crites 1974).

According to Crites (1974), a large amount of data, from interviews and archival records as well as standardized tests was collected on 140 subjects with a low attrition rate. The standardized tests included the Bennett Mechanical Comprehension Test, the Kuder Preference Record, and the Guilford-Zimmerman Temperament Survey. The subjects were tested from ninth grade to their establishment in an occupation around the age of 35. There were also four interviews with the subjects and one interview with their parents.

In the initial phase of the Career Pattern Study, each subject in the sample was interviewed four times in order to gather information on free time, reactions to school, familial relationships and vocational plans.

According to Super (1953), the process of developing a career is an important part of an individual's developmental process. The development of career behaviors as a person matures does not occur independently from the development of other behaviors that are age-appropriate. Career stages occur with their corresponding developmental tasks and depend on age, personal and social experiences, and extrinsic and intrinsic factors of locus of control (Super & Kidd, 1979).

Super (1990) , in his Career Pattern Study, which provided much of the data to test his theoretical perspective focused on the establishment of variables and life stages related to career maturity. Super formulated 14 major propositions for his longitudinal research study :

1. Self-concept, needs, values, interests, traits, and abilities differ among individuals.
2. People are qualified by these characteristics for a number of occupations.
3. Each occupation requires a characteristic pattern of abilities and personality traits, with tolerances wide enough to allow both some variety of occupations for each individual and some variety of individuals in each occupation.
4. Vocational preferences and competencies, the situations in which people live and work, and their self-concepts change with time and experience.
5. The process of change may be summed in a series of life stages characterized as a sequence of growth, exploration, establishment, maintenance, and decline.
6. The nature of the career pattern or occupational level attained is determined by the individual's parental socioeconomic level, mental ability, education, skills, personality characteristics and career maturity and by the opportunities to which he or she is exposed.
7. Career maturity is a combination of physical, psychological, and social characteristics.
8. Career maturity is a hypothetical construct .
9. Development through the life stages can be guided by fostering mature abilities and interests.



10. The process of career development is essentially developing and implementing occupational self-concepts.
11. The process of synthesis of or compromise between individual and social factors is one of role playing.
12. Work satisfaction and life satisfaction depend on the extent to which the individual finds adequate outlets for abilities, needs, values, interests, personality traits, and self concepts.
13. The degree of satisfaction people attain from work is proportional to the degree to which they have been able to implement self-concepts.
14. Work and occupation provide a focus for individual personality organization (Super, 1990).

His research identified such variables as socioeconomic status, age, grades, relationships, intelligence, and personality traits as variables having a correlation with career maturity.

Throughout the longitudinal study, Super (1990) reported that the self-concept in career development has been an synthesizing agent.

In expressing a vocational preference, a person puts into occupational terminology his ideas of the kind of person he is, in entering an occupation, he seeks to implement his self-concept, and in stabilizing in an occupation he attempts to achieve self-actualization. Through growth and learning as well as the constant interaction of the individual with external influences that self-concept system is modified and adjusted until a synthesis is finally evolved.

Furthermore, the establishment of life stages, according to Super, gives prominence to individuals' mastery of increasing complex tasks at different stages of career development .

Zaccara (1970) reported that Super's theory explained the important relationship between personal development and career development. Super described the process as continuous, believing that self-concept is linked to career choice. The basic foundation of Super's theory is that the individual is an organizer of his or her experience, choosing an occupation that would allow him or her to function in a role consistent with his or her self-concept, and that this same self-concept is a function of his or her development.

Herr (1988) also examined the developmental tasks that span life stages (age 14 to 25). He contended that vocational preference relates to an individual "formulating ideas as to field and levels of work which are appropriate for him, self and occupational concepts which will enable him, if necessary to make tentative choices, that is, to commit himself to a type of education or training which will lead him toward some partially specified occupation" (Herr, 1988). Vocational preference is defined as deciding on a specific occupation and making a commitment to achieve it. Thus, his stages involve formulating a preference and an actual choice. Choice is represented by entering a post secondary school designed to prepare one for the preferred goal or employment. However, Herr contends that many adolescents have not attained career maturity, and a personnel program or rehabilitation program is needed for students to develop career maturity (Herr 1988).

Gibbons and Lohnes (1982) also conducted a twenty year longitudinal study on career maturity. The Career Development Study (CDS) consisted of 111 subjects in the study. Fifty-seven boys and fifty-four girls were studied from eighth grade to 34 and 35 years of age. The subjects were varied in socioeconomic status and family occupations. However, all the students were exposed to an eighth grade

group guidance treatment based on " You: Today and Tomorrow" (Herr & Cramer, 1992). The subjects were interviewed throughout the study, contacted by questionnaire, correspondence and telephone. Final data was collected when the subjects reached 34 to 35 years of age. The Readiness for Vocational Planning Scale was used for data collection. According to Gribbons and Lohnes (1982) the CDS attempted to validate many of the concepts first proposed in Super's Career Development Study.

Gribbons and Lohnes (1982) found that vocational maturity increased with age and that career patterns can be conceptualized, operationally defined, measured, and predicted. Career transitions or stages are predictable from career process variables and trait profiles of subjects.

The third extensive study involving vocational psychology, Project Talent began in 1960. Flanagan's research design involved 400,000 students between grades 9 and 12. According to Crites , subjects were tested with extensive instruments which took two days to administer. The tests measured general ability, special aptitudes, interests, temperament, biographical information, home background, and future plans. Follow-up tests were conducted in intervals of 1 year, 5 years, 10 years, and 20 years from the students' graduation dates (Flanagan, 1971).

Besides longitudinal studies, other studies on career maturity include the following:

Manuele (1984) examined the development and validation of a measure of vocational maturity for educationally and economically disadvantaged adults who experience delayed career development due to a variety of social, economic and

psychological reasons. The Adult Vocational Maturity Assessment Interview (AVMAI) was designed to measure attitudinal, cognitive, and behavior aspects involved in coping with exploratory and vocational development tasks. The researcher contended that the majority of research and theory on career maturity involved white, middle-class adolescents and young adults, and the popular measures were culturally biased for several groups. The results of the study revealed that the AVMAI was useful in exploring the attitudes and behavior of groups whose career patterns are atypical and nonlinear. Furthermore, there is a need for researchers to examine the special career development needs of adults who require assistance from counsellors and other professionals in order to enter and participate effectively in the labor force (Manuele, 1984).

Luzzo (1995) examined the relationship between career aspiration, current occupation congruence and the career maturity of 134 college undergraduates. The sample consisted of 103 women and 31 men. The students attended a large midwestern community college. All subjects completed a demographic questionnaire and two career maturity measures during an introductory psychology course. The researcher reported a significant relationship between aspiration-occupation congruence and two separate measures of career maturity. Luzzo suggested numerous career development benefits to individuals whose environments are congruent with their personality type and the concept of career warrants continued empirical testing.

## Locus of Control

Within the last 20 years, there were an estimated 600 published studies examining aspects of internal versus external locus of control (Rotter 1975). This research, according to May (1978), derived from the work of Julian Rotter (1954), and is based on social learning theory which contends that individuals differ in the way they perceive their environment. According to this construct, at one extreme are internal persons who believe that events take place as the result of their own behavior. At the other end of the continuum are external persons who perceive that they have little or no control over occurrences in their lives. External persons feel that fate, luck, chance or powerful others control their lives (May 1978).

The literature review examining Rotter's concept of internal-external locus of control is divided into the following areas: anxiety, adjustment, learning, risk-taking, ethnic group and social class differences, achievement, self-concept and personality. According to Rotter (1975), the most significant evidence for the construct validity of the internal-control variable, lies in the area of personality functioning. Rotter contends that the internal-external control concept is a generalized expectancy operating across many situations for most people.

Luzzo and Ward (1995) also examined vocational maturity and personality. This study was based on Holland's (1985) trait-factor person-environment theory. Holland postulated that career satisfaction, stability, and achievement depend on a person's personality type and environment. The study consisted of 61 undergraduates attending a small, liberal arts college. The Dictionary of Holland Occupational Codes, Career Decision-Making Self-Efficacy Scale, and the Career

Locus of Control Scale was used. The results of the investigation revealed that locus of control is a significant predictor of career aspirations.

### Locus of Control & Career Maturity

Rotter (1966) also reported that mature career attitudes were related to locus of control. He contends that " the degree to which the individual perceives that reward follows from, or is contingent upon his own behavior or attributes (internal) versus the degree to which he feels the reward is controlled by forces outside himself (external)."

According to Crites (1973) , this generalized expectancy variable is domain specific. High internal locus of control has been shown to be related to efforts to acquire information concerning future goals, retaining information regarding goals, and utilizing information of future goals. Internals display a higher degree of self-direction and information seeking regarding occupation choice and employment.

Thomas (1976) investigated the relationship between locus of control on career maturity . The purpose of this study was to determine the degree to which locus of control influenced the development of mature career attitudes. The effects of race and age were also examined on career maturity. Research data was obtained from the Career Development Responsibility Scale (CDR) and the Career Maturity Inventory (CMI). It was hypothesized that locus of control would influence the development of career attitudes. The results indicated that locus of control and race were significant and locus of control groups differed significantly with externals having the least mature career attitudes. Thomas reported that the mean

differences between internals and externals supports the concept that the degree of locus of control effects the degree of career maturity.

Robinson (1980) conducted a study to determine the relationships between demographic data scores on the Internal-External Locus of Control Scale, the Sixteen Personality Factor Questionnaire, American College Test scores, and grade point averages. These tests were used to predict levels of performance on the Career Maturity Inventory. The sample consisted of 399 students enrolled in a psychology course at a large university. All students were administered the Sixteen Personality Factor Questionnaire, the Rotter I-E Scale, and the Competency and Attitude Scales of the Career Maturity Inventory. The findings of this study indicated that internality on the Rotter I-E Scale, higher American College Test Scores, and higher grade point averages correlated significantly with career maturity. The most significant correlations were calculated for the factors on the Sixteen Personality Factor Questionnaire and part three of the Competency Scale of the Career Maturity Inventory. The strongest correlations were found between the career attitudes' section of the Career Maturity Inventory and locus of control. The more the student tended to function from an internal locus of control framework, the higher the student's level of career maturity scores.

Bernardelli, De Stefano, and Dumont (1983) studied the relationship between internal-external locus of control, career maturity, occupational information seeking and sex. The sample consisted of 240 ninth grade students. The Rotter Internal-External Locus of Control scale and Crites' Career Maturity Inventory were administered to 137 males and 103 females. A paper and pencil measure was used to measure occupational information seeking behavior. All students were administered the scales during school time in two separate sessions on consecutive

days. The measures were administered to randomly scheduled classes during the day. Students were then taken to the occupational information library and given a brief orientation talk stressing its use and availability to them. For a 6-week period, the students visits to the occupational information library were recorded, as were the appointments made to the guidance services at the end of the 6-week period. All students were also administered the I-S self-report scale. Results indicated that locus of control was significantly related to career maturity. The researchers also found that career maturity correlated with occupational information-seeking behavior.

Perrino (1985) studied the relationship between academic achievement, career maturity, and locus of control for low and high achievers in a vocational and academic high school. The sample consisted of 180 male vocational and academic high school students in grade twelve. Based on class rank and academic achievement, the students were divided into high and low achievers. The Nowicki-Strickland Locus of Control Scale for Children (CNSIE) (1973) and the Crites Career Maturity Attitudinal Scale (1978) was administered to the group. The results of the study concluded that locus of control, achievement and career maturity are positively interrelated. Additional findings also indicated that the low-external students were significantly different from the low-internal, high-external, and high-internal students.

Ralph (1986) investigated the relationship between self-concept, locus of control and age as they correlate to career maturity. The researcher hypothesized that a variation in self-concept, locus of control, and age would be related to a level of career maturity. To measure the variables, the Career Development Inventory, the Tennessee Self-concept Scale, and the Rotter Internal-External Locus of Control



Scale were used. The tests were administered to 109 graduate nursing students, to determine if there was a multivariate relationship between the resulting set of variables. A correlation analysis was employed. Results revealed that self-concept was related to exploration and career change. An internal locus of control and a high self-concept were also related to career maturity.

Taylor and Popma (1990) examined the relationship between locus of control, career salience, career decision-making self-efficacy, and career indecision. The study utilized 407 college students. A questionnaire requesting demographic information, the Career Decision-Making Self-efficacy Scale (CDMSE), the Occupational Self-efficacy Scale (OSES), the Rotter Internal-External Scale, the Career Salience Questionnaire, and the Career Decision Scale (CDS) were administered to 203 females and 204 males.

Researchers reported that CDMSE was moderately and negatively related to vocational indecision and locus of control whereas a moderate positive relationship was found between CDMSE and vocational decidedness and occupational self-efficacy (Taylor and Popoma 1990). Furthermore, no relationship was reported between CDMSE, career salience and gender differences. They elaborated by reporting that a moderate negative relationship was found between locus of control and CDMSE indicating that the more external a person's locus of control, the less confidence they express in career decision-making task performance. Moreover, they also suggest " that the more external an individual's attribution of control over events and consequences in life, the lower the confidence in successful completion of career decision-making tasks. " In addition, Taylor and Popma (1990) recommend that individuals who possess control of their behavior will also successfully master decision-making behaviors.

Luzzo (1993) conducted an investigation which compared the value of several theoretically derived personal (age and gender), educational (class standing and academic performance), and psychological factors as predictors of career maturity. Participants included 337 undergraduates attending a large university. The sample consisted of 203 females and 134 males. The Career Maturity Inventory's Attitude Scale, The Vocational Preference Inventory and the Rotter Locus of Control Scale were used to measure the factors. The results supported the concept that certain educational (class standing and academic achievement) and psychological (locus of control and vocational congruence) factors are more significant predictors of career maturity among college students than the personal factors (age and gender) that often are considered critical components in career development.

In addition, Luzzo and Ward (1995) examined the relationship between social-cognitive constructs such as self-efficacy and locus of control and career development concepts. The objective of this study was to provide clues regarding the types of interventions that would be most successful at encouraging students to seek employment opportunities during college that are congruent with their career aspirations. Participants in this study involved 61 undergraduates attending a small university. Career locus of control was assessed by the Career Locus of Control Scale. The results revealed that locus of control is a statistically significant predictor of career aspiration-current occupation congruence among college students. They suggested that the results indicate that students with an internal career locus of control are more likely than those with an external career locus of control to seek part-time jobs during college.

Perrino (1985) studied the relationship between career maturity for low and high achievers in a vocational and academic high school and locus of control. The sample consisted of 180 vocational and academic high school students in grade twelve. Class rank and academic achievement determined if they were low or high achievers. The Nowicki-Strickland Locus of Control Scale for children (CNSIE) and the Crites Career Maturity Attitudinal Scale (1978) were used. The results of the study reported a relationship between career maturity , locus of control, and achievement.

### Summary of Review of Literature

To summarize, the literature review suggests that the variables career maturity and locus of control are constructs related to the developmental process. Although the relationship between the variables has been clarified in some studies, further research is required. According to Herr (1988), much of the career development theory and counseling procedures have evolved from research, with samples restricted in size and composition. As a result , many relationships and influences regarding career behavior need to be tested and validated.

## Chapter III

### Sample

Participants included 39 undergraduates attending a state college in New Jersey. Of the total sample, 5 were male, 34 were female. The mean age of the population was 18, with ages ranging from 18 to 24. The majority of the sample were in their first year of college. The following representation of racial groups included : Caucasians 34, Black 2, Asian 1, and Hispanic 2 . All subjects were enrolled in a general psychology course. Students participated in the investigation as part of an introductory psychology course requirement.

### Measures

Locus of control was assessed with the Rotter Internal-External (I-E) scale. The instrument is a measure of individual differences in a general belief in external control. (Rotter, 1954, 1966). The I-E scale consists of 29 paired statements, six of which are filler items. A locus of control score is determined by summing the number of items chosen by a respondent that indicate a belief in the external locus of control. Higher scores on the I-E scale indicate an external locus of control, while lower scores on the scale indicate an internal locus of control. Scores may range from 1 to 23.

Rotter (1966) reported test-retest reliability coefficients of  $r = .60$  for males and  $r = .83$  for females over a one month interval. Hersch and Scheibe (1967) also found test-retest reliability coefficients ranging from .48 to .84 for a two month

period. Internal consistency estimates of reliability have ranged from .65 to .79, with nearly all correlations in the .70s (Rotter, 1966).

The Career Maturity Inventory's Attitude Scale (CMI-AS; Crites, 1978) was selected to measure Career Maturity. The CMI-AS was designed to measure the maturity of an individual's attitudes towards the career development process. According to Crites (1978), "The scale elicits the feelings, the subjective reactions, the dispositions that the individual has toward making a career choice and entering the world of work."

The instrument includes 50 true-false items that represent five different attitudes toward career development. The CMI-AS dimensions include involvement in the choice process, orientation toward work, independence in decision making, preference for vocational-choice factors, and conceptions of the career-choice process.

Crites (1978) reported Kuder-Richardson (KR) 20 reliability coefficients of the CMI-AS ranging from .72 to .90 and test-retest reliability of .71 over a one year interval, attributing the low reliability to expected maturational changes.

According to Savickas (1990), the CMI-AS is considered a valid measure of career maturity.

Demographic information regarding each participant's year in college, age, ethnicity and occupational aspirations was obtained from a demographics questionnaire.

## Design

In this study a random sample of college students was not possible. An application for approval of research involving the use of human subjects, and informed consent sheet and a feedback sheet was submitted to the ethics and review board. Subjects were obtained through a sign-up sheet posted in the psychology department. Each student was administered a demographic questionnaire, the Rotter I-E Scale, and the CMI-AS during a scheduled research session. The students were informed about their rights to privacy and confidentiality concerning the test information. They were advised that their participation in the study was voluntary, and they could discontinue at anytime if they did not wish to complete the questionnaires. To ensure confidentiality of the data, a coding system was used to ensure anonymity of the participants.

This study used a correlational design. The career maturity scores, locus of control scores, and demographic data were correlated to determine if a relationship existed between the variables. To establish whether existing differences were significant at the .05 level of significance, t-tests for paired samples were used to test the null hypothesis.

## Hypothesis

College students with an internal locus of control will exhibit higher levels of career maturity than those with an external locus of control.

### Analysis

In order to examine the relationship among the variables, a series of Pearson product-moment correlation coefficients were computed comparing scores on the Internal-External Scale , Career Maturity Inventory and the demographic questioner. T-Tests for paired comparisons at the .05 level of significance were also used to test the null hypothesis.

The data in this study were statistically analyzed using the computer program "SPSSX." Means and standard deviations were computed for the sample and tested at the .05 level of significance.

### Summary

This chapter provides a description of the sample, the instruments used, procedures, design and statistical analysis used in this study. Results will be provided in the following chapter.

## Chapter IV

The hypothesis stated in the present study is as follows: college students with an internal locus of control will exhibit higher levels of career maturity than those with an external locus of control.

Results of the t-test indicated differences among the paired samples. A summary of the descriptive statistics and t-values for the locus of control scale and career maturity are presented in Table 4.1. A t-test for paired differences  $p > .05$  showed a significant difference between the groups on total career maturity scores and locus of control scores. The null hypothesis was therefore rejected. Results indicated that the higher career maturity scores are more congruent with lower external scores. The criteria to determine high and low scores and the relationships between internal and external locus of control scores, were analyzed by the criteria of external scores being greater than or equal to 14.

**Table 4.1**  
**Comparison of Means for Paired Sample (N=38)**

Variable	Mean	SD	t-value
Career Maturity	35.50	3.667	21.92
Locus of control	13.55	4.105	



Pearson product-moment correlations were computed between each of the demographic variables. A correlation matrix of the variables, is shown in Table 4.2. There was no significant relationships between the variables of age, sex, race, year in college and locus of control at the  $p < .05$  level. There was a relationship (although relatively weak ) between career maturity and year in college.

**Table 4.2**  
**Correlations Among Variables**

Demographic variables	Career Maturity	Locus of Control
Age	.2849	-.7176
Sex	-.0230	-.0163
Year in college	.3321	-.3188
GPA	-.0431	.1038

\* significant at .05 level

## Chapter V

### Summary

Predictors of Career maturity have direct applications for counselors and educators. Research has clearly and consistently identified career maturity as an important variable in career development. This construct is defined as the readiness of an individual to make informed, age-appropriate career decisions and cope with developmental tasks. A number of relationships between career maturity and various characteristics associated with effective development have been studied. Significant relationships have been reported between career maturity and academic achievement, self-esteem, self-efficacy, age, and locus of control.

The purpose of this study is to examine the relationship between locus of control in college students and career maturity. The sample consisted of 39 undergraduates attending a state college in New Jersey. Of the total sample, 5 were male, 34 were female. The mean age of the population was 18, with ages ranging from 18 to 24. The majority of the sample were in their first year in college. Locus of control was assessed with the Rotter Internal-External (I-E) scale and the Career Maturity Inventory Scale (CMI-As) was selected to measure Career Maturity.

The results of this study supported the hypothesis that college students with an internal locus of control will exhibit higher levels of career maturity than those with an external locus of control. There was also a significant relationship between career maturity and year in college.

## Conclusions

The relationship between undergraduates' locus of control and career development was supported. The more internal the participant's locus of control, the more mature their career decision-making attitudes and the greater their career decision-making skills. These results indicate that an internal locus of control facilitates college students' cognitive and effective career development. Individuals with an internal locus of control are more likely than those with an external locus of control to take an active role in vocational planning and assume responsibility for career choices.

## Implications for Future Research

A replication of this study using a larger sample is suggested. Furthermore, a random sample is also suggested. Variables such as age, year in college, sex, and race need further view. This study did not provide a review or answers concerning the relationship between locus of control, career maturity and other variables influencing the results.

The factors that enter into a career decision and the process by which decision or choice is made are highly complex. Thus, additional research is needed to effectively secure and determine the population's characteristics, and for the future development of career education programs, which would enhance and nurture career decision-making.

As we approach the 21st century, the world in which we live in and work continues to change and become more complex. Vast and far reaching changes are occurring in the nature and structure of social and economic systems in which people live, and industrial and occupational structures in which they work. "Individuals' values and beliefs about themselves and their society are changing as are the ways they look at and understand their own growth and development. More people are looking for meaning in their lives, particularly as they think about the work they do, their situation as a family member and as an individual..." (Gysbers, 1984, p.15). Lack of meaning in these areas can impact negatively on career growth and development.

College career counselors need to realize the importance of locus of control as a motivational variable in college students' career development. Developing strategies for fostering an internal locus of control could significantly impact student career development. Future research should address such strategies and should assess their utility. If career education personnel assume that students feel that they cannot control their future, as this study suggests, then limited benefit may be gained from allowing students to explore occupations. The external person may require a structural learning environment, needing to be shown that he or she can do something about entering a career of his or her choice.

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