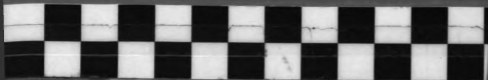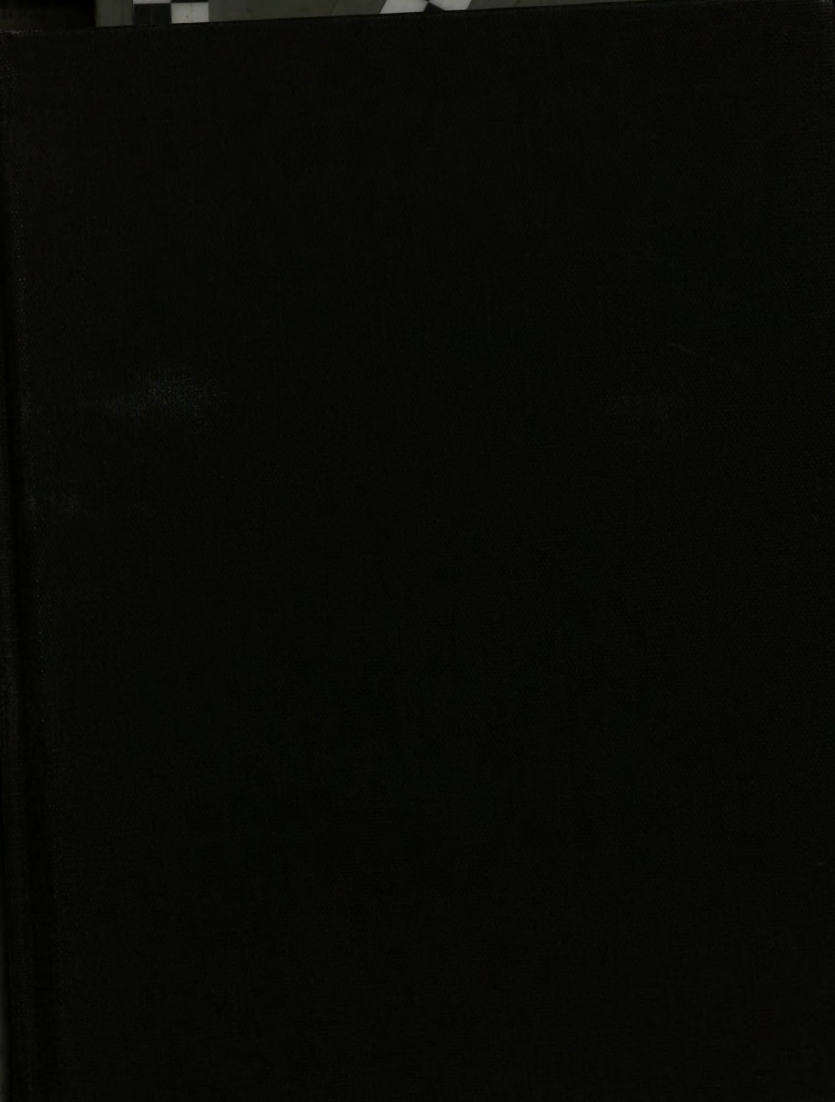THESIS

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THE EFFECT OF COGNITIVE AND NONCOGNITIVE VARIABLES

ON ACADEMIC ACHIEVEMENT OF STUDENTS ATTENDING

A MIDWESTERN COMMUNITY COLLEGE

By

Laurene L. Ziegler

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ABSTRACT

THE EFFECT OF COGNITIVE AND NONCOGNITIVE VARIABLES
ON ACADEMIC ACHIEVEMENT OF STUDENTS ATTENDING
A MIDWESTERN COMMUNITY COLLEGE

By

Laurene L. Ziegler

The purpose of this study was to investigate the relationships
of underlying motivations on learning and persistence toward academic
achievement in a community college with students enrolled in study-
skills classes. The relationship of academic achievement to locus of
control, self-concept, reading ability, and specific established goals
was explored.

Fifty-four females and 44 males represented the population
analyzed. Seventy-seven of them were single, and 21 were married. The
youngest student in the study was 18, and the oldest was 54. The
ethnic background distribution was 1 American Indian, 2 Asian, 14
Black--non-Hispanic, 7 Hispanic and Chicano, and 74 White--non-
Hispanic. Only three were international students. There were also
eight handicapped students represented.

A Personal Inventory, the I-E Rotter Scale, the Tennessee Self-
Concept Scale, the Nelson-Denny Reading Test, grade point average, and
telephone interviews were the instrumentation used in this study. The

Laurene L. Ziegler

statistical procedures used in the analysis of data were the Pearson product-moment correlation, the multivariate analysis of variance procedure (MANOVA), the univariate analysis of variance procedure (ANOVA), and the chi-square test of association. The level of significance, $p = 0.05$, was used for each test.

Two of the seven null hypotheses were rejected and five were accepted. No statistically significant relationship was found between locus of control, self-concept, and academic achievement. There was a statistically significant difference between students who were enrolled for three terms and students who were enrolled for two terms or less with respect to the I-E Rotter Scale, the Tennessee Self-Concept Scale, the Nelson-Denny Reading Test, and grade point average (GPA). The ANOVA results indicated that out of the four variables, GPA was the only one considered as causing the significant difference between the two groups. The primary goals of these students were obtaining training for an occupation or taking courses leading to transfer or undergraduate degrees. Significant relationships were found between primary goals, commitment levels, and strategies reported for achieving their goals.

ACKNOWLEDGMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

The average college student profile is changing rapidly. No
longer can a student be described as one who goes to college from ages
18 to 22 and has a main goal of a college education or degree. The
average age of college students is shifting upward, and the one goal of
obtaining a college degree has been replaced by a multiplicity of goals
related to lifelong learning. This shift in age and change in goals
means that students can no longer be viewed as traditional or nontradi-
tional. Instead, they should be viewed as adult learners in transition
(Sadler, 1982).

Adults' decisions to seek educational renewal are clearly and
directly related to significant changes in their lives. Aslanian and
Brickell (1980) performed a study and took the reasons given by those
who said they were learning to make some past, present, or future life
transition and classified them into the seven life areas in which
transitions would occur: career, family, health, religion, citizen-
ship, art, and leisure. The results of that analysis showed that while
adults are learning to make transitions in every life area, more are
learning because of transitions in some areas than in others. Thus,
learning is unevenly distributed over the categories, as follows:

```
Career . . . . . . . . . .56%
Family . . . . . . . . . .16%
Leisure. . . . . . . . . .13%
Art. . . . . . . . . . . . 5%
Health . . . . . . . . . . 5%
Religion . . . . . . . . . 4%
Citizenship. . . . . . . . 1%
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Fifty-six percent named career transitions as their reason for deciding to learn. Transitions in their family lives were mentioned by 16 percent. Thirteen percent pointed to transitions in their leisure patterns as forcing them to learn something new. More adults learn in order to make career transitions than for all other reasons combined, with family and leisure transitions competing for a distant second place. No other life area accounted for more than 5 percent of the transitions requiring learning.

Learning is the process through which an individual acquires the facts, attitudes, or skills that promote growth and produce changes in behavior. Tough (1982) stated that learning is a fundamental concept and is always involved in some kind of change. To be considered sufficiently intentional, a change must have two major characteristics. First, the change must be definitely chosen and intended. That is, the person clearly makes a decision to change in a particular direction. Second, the person takes one or more steps to achieve the change.

Choosing and striving are the two key elements in accepting change. The person chooses a particular change and then takes action to achieve it. The change is intentional only if the person expects and definitely seeks the approximate sort of change that does occur.

Important intentional changes are particularly common in four areas: (1) job, career, and training; (2) human relationships, emotions, and self-perception; (3) enjoyable activities; and (4) residence location. These four areas account for 75 percent of all intentional changes.

Three classes of adult learners emerged from Houle's (1961) analysis on motivations to learn:

1. the _goal-oriented_ who learn to accomplish specific objectives

2. the _activity-oriented_ who learn to develop social contacts and relationships with others

3. the _learning-oriented_ who learn for the sheer pleasure of acquiring knowledge for its own sake. (pp. 16-24)

Morstain and Smart (in Cross, 1981) identified five distinct types of adult learners that support the research of Houle:

1. _non-directed learners_ who have no specific goals

2. _social learners_ who want to improve their social interests and personal associations

3. _stimulation-seeking learners_ who learn to escape from routine and boredom

4. _career-oriented learners_ who learn because of occupational interests

5. _life change learners_ who learn to improve multiple facets of their lives: career, intellectual, and social

Cross (1981) suggested that those with high motivation, high past success, good information networks, and adequate funds get more and more education while those already dragging in the educational race fall further and further behind. Adults sometimes fail to initiate learning for various reasons. _Situational barriers_ are those arising

from one's situation in life at a given time, such as lack of time due
to home or job responsibilities, lack of transportation, geographical
isolation, or lack of child care. _Dispositional barriers_ are those
referring to attitudes about learning and perceptions of oneself as a
learner. Feeling too old to learn, lack of confidence, and boredom
with school are examples of dispositional barriers. _Institutional_
barriers include those erected by learning institutions or agencies
that exclude or discourage certain groups of learners because of such
things as inconvenient schedules, full-time fees for part-time study,
or restrictive locations.

Purpose

The purpose of this study was to investigate the relationships
of underlying motivations on learning and persistence toward academic
achievement in a community college with students enrolled in study-
skills classes. The relationship of academic achievement to locus of
control, self-concept, reading ability, and specific, established goals
was explored.

The objective of the study-skills course is to expose the
student to a variety of techniques requiring practical experience in
skill areas such as time management, goal setting, textbook study,
notetaking, and using the library. The course was designed to enhance
students' ability to function more appropriately and effectively in
class, to help them succeed in their programs of study, and to help
develop attitudes and behaviors that would lead to more rewarding and
successful learning experiences.

Research Questions

1. Is there a significant relationship between academic achievement and internal or external locus of control?

2. Is there a significant relationship between self-concept and academic achievement?

3. Is there a significant relationship between reading ability and academic achievement?

4. Is there a significant difference between students who were enrolled for three terms and students who were enrolled for two terms or less with respect to the I-E Rotter Scale, the Tennessee Self-Concept Scale, the Nelson-Denny Reading Test, and GPA?

5. Is there a significant relationship between the primary goals of the students attending LCC and the strategy they have selected to accomplish them?

6. Is there a significant relationship between self-commitment and the primary goals of the student?

7. Is there a significant relationship between self-commitment and the strategy they selected to accomplish their goal?

Research Hypotheses

To answer the research questions, the following null hypotheses were tested:

Ho 1: There is no significant relationship between academic achievement and locus of control.

Ho 2: There is no significant relationship between academic achievement and self-concept.

Ho 3: There is no significant relationship between reading ability and academic achievement.

Ho 4: There is no significant difference between students who were enrolled for three terms and students who were enrolled for two terms or less with respect to the I-E Rotter Scale, the Tennessee Self-Concept Scale, the Nelson-Denny Reading Test, and GPA.

Ho 5: There is no significant relationship between the primary goals of the students attending LCC and the strategy they have selected to accomplish them.

Ho 6: There is no significant relationship between self-commitment and the primary goals of the student.

Ho 7: There is no significant relationship between self-commitment and the strategy the students have selected to accomplish their goal.

Definition of Terms

Achievement--Maehr (1974) stated that achievement is (1) a measurable change in behavior (2) attributed to some person as the causal agent (3) that is or can be evaluated in terms of a standard of excellence and (4) that typically involves some uncertainty as to the outcome or quality of the accomplishments.

Adult learner--Cross (1979) classified these learners into two groups, new students and nontraditional students. The new students are those who are educationally disadvantaged in the sense that they need help with basic skills, motivation, and guidance on how to succeed in the educational system. New students may be white or black, rich or poor, but they share the common experience of poor past performance in school. Without open admissions and special admissions they would not be considered college material. The term "nontraditional students" is

used to describe adult part-time learners for whom education is a secondary rather than a primary activity.

Lack of basic reading skills--The four student deficiencies identified by Ferguson and Bitner (1984) in the area of reading included low word recognition, poor meaning vocabulary, inadequate reading comprehension, and slow rate of reading. A lack of basic reading skills hampers the student's ability to follow classroom presentations, read required materials, organize and summarize content information, and interpret examination instructions and questions.

Locus of control--The concept of locus of control was succinctly defined by Rotter (in Phares, 1973):

> When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of others, or as unpredictable because of the great complexity of the forces sur-rounding him. When the event is interpreted in this way by an individual we have labeled this a belief in external control. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control. (p. 2)

Motivation--Maehr (1982) described five identifiable behavioral patterns in his study on motivation.

1. Direction--The apparent choice among a set of action possibili-ties is a first indicator of motivation. When an individual attends to one thing and not another, it is then that we are likely to infer that he is motivated in one, but not another way.

2. Persistence--Persistence is the second behavioral pattern that forms the basis for motivation inferences. When an individual concentrates attention on the same task or event, for varying periods of time, it is then that observers are likely to infer varying degrees of motivation.

3. <u>Continuing motivation</u>--A behavioral pattern that is strikingly suggestive of powerful motivational forces is the return to a previously encountered task or task area on one's own without apparent external constraint to do so.

4. <u>Activity</u>--Activity level is a fourth behavioral index of motivation. Some persons seem to be more active than others; they do more things; they seem to have more energy. Variation in level of performance often leads to motivational inferences.

5. <u>Motivation as personal investment</u>--When behavioral direction, persistence, performance, continuing motivation and variation in activity level are observed, one might suggest that a person is in effect investing his/her personal resources in a certain way. Personal resources, in this case, refer largely to time, talent, and energy. (pp. 9-14)

<u>Persister</u>--Hilton (1982) defined a persister as a person who has attained a particular goal within a specified amount of time and who has pursued that goal without significant interruption.

<u>Remedial and developmental students</u>--Roueche and Hurlburt (1968) stated that the courses and curricular programs community/junior colleges have established to accommodate the low-achieving student are usually remedial or developmental in nature. Remedial implies the improvement of students' skills in order that they might enter a program for which they are currently ineligible. Developmental implies the improvement of skills or attitudes without reference to their eligibility for another program.

<u>Self-directed learners</u>--Knowles (1975) described the characteristics of a self-directed learner in his andragogical theory. The core concepts of andragogical theory are that adults have a psychological need to be self-directing; that their richest resource for learning is the analysis of their own experience; that they become ready to learn as they experience the need to learn in order to confront

developmental tasks; and that their orientation toward learning is one of concern for immediate application.

Self-esteem--Coopersmith (1967) stated that self-esteem is an evaluation that the individual makes and customarily maintains with regard to himself; it expresses an attitude of approval or disapproval and indicates the extent to which the individual believes himself to be capable, significant, successful, and worthy. In short, self-esteem is a personal judgment of worthiness that is expressed in the attitudes the individual holds toward himself.

Socioeconomic status--Harris and Hodges (1981) defined socioeconomic status as a person's position or standing in a society because of such factors as social class, level of education, income, and type of job.

Design of the Study

Population

The population of this study was students participating in all Techniques of Study classes at Lansing Community College during fall term 1984. All four teachers were represented in the study. Nine sections were taught in a conventional classroom setting on campus, and one section provided self-paced instruction in the lab. There were four morning classes, three afternoon, and two in the evening. The self-paced instruction was prearranged by each student.

Instrumentation

A structured questionnaire was designed to gather data concerning information on demographics and goal commitment for each individual. The I-E Rotter Scale, the Nelson-Denny Reading Test, and the Tennessee Self-Concept Scale were used to identify internal or external locus of control, reading ability, and high or low self-concept. All instruments were administered during the Techniques of Study class throughout the term.

Analysis of Data

The Office of Research Consultation at Michigan State University assisted in recommending appropriate statistical techniques for establishing the design of this study, and a doctoral student at Michigan State University assisted in writing all computer programs for the data analysis. The computer programs and facilities of the Michigan State University Computer Center were used. Procedures for analysis of data are explained in greater detail in Chapter III.

Delimitation of the Study

The participant population included only students who were enrolled in the Techniques of Study course during fall term 1984 at Lansing Community College and may be nonrepresentative of students preceding and following the academic year, 1984-85.

Limitations of the Study

1. The validity of the study was affected by the honesty and accuracy with which the participants responded.

2. The student records of the registrar's office may not have been accurate or up to date.

3. The findings of this study are correlational, not causal.

Significance of the Study

The quest for knowledge and success in today's world can be a very difficult process for many community college students. Remedial students require additional instruction in basic skills such as reading, math, writing, and spelling before being accepted into a program of their choice, while developmental students can pursue their programs but need to upgrade their basic skills and attitudes toward learning at the same time. It is likely that many of these students lose interest in learning since remediation is a time-consuming process that requires extra reinforcement and practical experience in order to develop a proficient skill. They may also become discouraged and frustrated with learning when little progress toward their career goal has been achieved. As they lose sight of their goal, their motivation level and desire to persevere tend to decrease over time.

The courses and curricular programs established by community/ junior colleges to accommodate the low-achieving student have had improvement of cognitive skills as their primary focus. The affective domain is equally important in its contribution to the learning process since attitude of the college student is a more difficult character-istic to change. Therefore, more research should focus on the rela-tionship of noncognitive variables to academic achievement and learning

In college. Few steps have been taken by scholars to perform research involving the effect of personality factors on academic achievement at the college level. This study was performed to serve as a foundation and frame of reference for learning about the effect of cognitive and noncognitive variables on academic achievement of community college students participating in a basic-skills course. An awareness of the factors contributing to a balance of both the affective and cognitive domains is needed to understand how students can function more effectively in their educational environment.

Summary and Overview

The general purpose of Chapter I has been to provide a frame of reference for this study. The rationale and implementation procedures were described, and terms important to the study were defined. Research questions and hypotheses regarding academic achievement were suggested. Chapter II contains a review of the literature which focuses on some motivation theories and the relationship of academic achievement to locus of control, self-concept, reading ability, and specific, established goals. Chapter III describes the design of the study, the population and sample for the study, and the procedures for collecting data. Instrumentation and techniques of analysis are reviewed and recorded. Chapter IV contains an analysis of the data. Chapter V includes a description and summary of the findings, conclusions, and recommendations for future research.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The two-year colleges, by their very nature, have a commitment
to serve and respond quite differently from four-year colleges to the
needs of remedial and developmental students. Ongoing research is
needed to identify the predominant characteristics and motivations of
community college students that are related to academic achievement, to
adequately design and alter the present curriculum. Only then will it
be possible to meet the specific needs and desired outcomes expressed
by the current student population.

The beginning of this chapter describes the concepts of Social
Learning Theory and Achievement Motivation to provide an overview of
how situational and personality parameters affect an individual's
interaction with his/her environment. Need theories are also discussed
to clarify the value of self-actualization and the importance of devel-
oping oneself to his/her fullest potential. Following the presentation
of theories related to motivation and learning, an intensive review of
both the cognitive and noncognitive variables examined in this study is
shared. The theoretical concepts of goal commitment, self-concept,
locus of control, and reading ability with respect to academic achieve-
ment are discussed in depth. Clarification of these concepts is

supported by a variety of studies that were conducted with remedial and developmental students enrolled in college. The reader should be aware that the content of this chapter has been divided into five major sections to enhance the organization of its resources for future reference or research.

Related Motivation Theories

Rotter's Social Learning Theory (Rotter & Hochreich, 1975) is primarily a process theory that attempts to study the interaction of the individual and his meaningful environment. Personality is not viewed as a set of internal characteristics which the individual carries around with him from situation to situation, but rather as a set of potentials for responding to particular kinds of social situations. It follows from this principle that the study of personality is the study of learned behavior that is modifiable and changes with experiences in a variety of life situations.

Another major assumption of social learning theory deals with the nature of motivation. Behavior as described by personality constructs is seen as goal directed. Rotter used the empirical law of effect in his theory, which defines reinforcement as any action, condition, or event that affects the individual's movement toward a goal.

Social learning theory requires the analysis of four kinds of variables in order to make a prediction about an individual's behavior. The first of the four variables is behavior potential (BP). This refers to the potential for any given behavior to occur in a

particular situation or set of situations as calculated in relation to any single reinforcement or set of reinforcements. The second major variable is the expectancy (E) construct. Expectancy is defined as the probability held by the individual that a particular reinforcement will occur as a function of a specific behavior on his part in a specific situation or situations. Whether or not a behavior will occur is considered to be not only a function of the nature and importance of the reinforcement that the individual desires but also of the individual's anticipation or expectancy that he will be able to achieve this goal if he behaves in a particular way. Rotter stressed that it is not the situation per se that is important in predicting behavior, but rather the way in which a particular individual perceives that situation. The third major variable in social learning is that of reinforcement value (RV). This refers to the degree of preference for any reinforcement to occur if the possibilities of their occurring were all equal. Individual differences exist in the way in which situations are perceived. The situation (S), the fourth major variable in social learning theory, refers to the psychological situation or any part of the situation to which the individual is responding.

Rotter hypothesized specific relationship among the four major variables in social learning theory. He suggested the following basic formula for the prediction of goal-directed behavior.

$$BP_{x,S_1}R_a = f\ (E_{x,R_aS_1}\ \&\ RV_{a,S_1})$$

The formula may be read as follows: The potential for behavior X to occur in situation 1 in relation to reinforcement a is a function of the expectancy of the occurrence of reinforcement a following behavior X in situation 1 and the value of reinforcement a in situation 1. This formula allows one to predict whether or not a specific behavior is likely to occur in a particular situation.

The preceding formula is somewhat limited in application, for it deals only with the prediction of a specific behavior in relation to a single specific reinforcement. Therefore, Rotter suggested the following formula, which may be used for more general predictions:

$$NP = f \; (FM \; \& \; NV)$$

This formula states that the potential for the occurrence of a set of behaviors that lead to the satisfaction of some need (need potential) is a function of the expectancies that these behaviors will lead to these reinforcements (freedom of movement) and the value of these reinforcements (need value). To summarize, need potential is a function of freedom of movement and need value.

Rotter suggested that a need has three essential components. The first of these is a set of behaviors directed toward the same goal (or similar goals). The potential occurrence of these related behaviors is called need potential. The second major component of a need is the set of expectancies that these related behaviors will lead to goals that a person values. The third component of needs is the value,

need value, attached to the goals themselves--that is, the degree to which an individual prefers one set of satisfactions to another set.

The Lewinian Field Theory and the Atkinson Theory (Atkinson & Feather, 1966) of Achievement Motivation are also both interactional in the sense that each considers situational and personality parameters. The Lewinian Field Theory is an assumption of behavior that is determined by the psychological life space and all that it involves. Its basic equation, $B = f (P,E)$, has long recognized the necessity of considering behavior in terms of interacting personality and situational factors. The typical situation employed in the investigation of persistency can probably be represented topologically and dynamically in Lewinian terms as a frustration situation in which a person in a state of tension is separated at some psychological distance from a goal (or region of positive valence) by a barrier. This barrier is the source of restraining forces that oppose the driving forces acting upon the person in the direction of the goal. The barrier may be objectively insurmountable, as when the subject is given an unsolvable puzzle and asked to solve it, or the barrier may represent a very difficult task in which case the opposing restraining forces would be very strong but could possibly be surmounted. There may be other regions of positive valence in the psychological environment to which the subject may turn if he so desires. Lewin appeared to consider persistence in terms of the person-barrier-goal situation when he wrote, "What is usually called persistence is an expression of how quickly goals change when the individual encounters obstacles."

Studies that have conceived of persistence as a motivational phenomenon in general have taken both person and situation parameters into account. This type of approach has the potential of being able to account both for variations in persistence from situation to situation and for variations from person to person. It also allows for the study of both in interaction. Lewinian field theory, while recognizing the interaction of person and psychological environment in its basic equation, appears to deal mainly with variations in the latter in its actual experimentation. The theory of achievement motivation, developed by Atkinson, is more explicit in recognizing the interaction of stable aspects of the personality (motives) and more transitory situational influences (expectations and incentive values) in determining motivation.

The Atkinson Theory of Achievement Motivation has an interactive assumption of motivation as a function of motives, expectations, and incentive values. This theory considers motivation expressed in the direction, magnitude, and persistence of behavior as a positive function of the strength of motive within the person, the strength of the expectancy of satisfying the motive through some action instrumental to the attainment of a goal or incentive, and the value of the specific goal or incentive that is presented in a given situation. The strength of motivation to perform some act is assumed to be a multiplicative function of the strength of the motive, the expectancy (subjective probability) that the act will have as a consequence the attainment of an incentive, and the value of the incentive:

Motivation = f (Motive X Expectancy X Incentive)

When both motivation to approach and motivation to avoid are simultaneously aroused, the resultant motivation is the algebraic summation of approach and avoidance. The act that is performed among a set of alternatives is the act for which the resultant motivation is most positive. The magnitude of response and the persistence of behavior are functions of the strength of motivation to perform the act relative to the strength of motivation to perform competing acts.

Motivation is defined as any intentional steps taken by an individual that assist him/her in becoming closer to achieving his/her short- or long-term goals. The underlying theories of motivation are divided into two categories. The need theories incorporate the philosophies of Maslow, McClelland, Alderfer, and Herzberg (see Figure 2.1). They all highlight the humanism of individuals instead of the machine-like qualities of scientific management and classical schools. The human ideal refers to a natural desire and intrinsic need to develop oneself to his/her fullest potential in order to grow and reach new heights. The process theories of Rotter, Lewin, and Atkinson speak to the individual's perception of the probability that his/her goal can be achieved and that there is some benefit to be gained by accomplishing this goal. The outcome of fulfilling this goal will have great value since intentional commitment was a significant factor in the developmental process.

MASLOW	McCLELLAND	ALDERFER	HERZBERG
Physiological		Existence	
Safety and Security			Hygiene
Love and Belongingness	Need for Affiliation	Relatedness	
Self-esteem	Need for achievement	Growth	Motivators
Self-actualization	Need for power		

Figure 2.1: Need theories. (From Judith R. Gordon, A Diagnostic Approach to Organizational Behavior, Boston: Allyn & Bacon, 1983, p. 95. Not to be duplicated without permission of the copyright holder.)

Goal Commitment

Why do some people succeed while others with similar abilities do not? Claypool (1983) suggested that one of several explanations might indeed be goal setting and achievement. Successfully passing through a career and lifetime should be a matter of setting and achieving goals. A goal can be defined as a personal commitment toward some well-defined objective an individual wants to accomplish. Goals can become a reality when desire, imagination, concentration, and discipline transform them into a definite plan of action. When setting the goal it is imperative the goal is attainable, challenging, measurable in terms of progress, and compatible with other personal, company, or family objectives.

Tinto's (1975) model argued that it is the individual's integration into the academic and social systems of the college that most directly relates to his continuance in that college. The higher the degree of integration of the individual into the college systems, the greater will be his commitment to the specific institution and to the goal of college completion. In the final analysis, it is the interplay between the individual's commitment to the goal of college completion and his commitment to the institution that determine whether or not the individual decides to drop out from college and the forms of dropout behavior the individual adopts. Either low goal commitment or low institutional commitment can lead to dropout. Therefore, the process of dropout from college can be viewed as a longitudinal process of interactions between the individual and the academic and social systems of the college during which a person's experiences in those systems continually modify his goals and institutional commitments in ways that lead to persistence and/or to varying forms of dropout.

Daubman and Johnson (1982) used the ideas of goal commitment and institutional commitment to compare withdrawing, continuing, and nonreturning undergraduates at the University of Maryland, Baltimore County (UMBC). They had originally speculated that withdrawing students would be less goal-committed than nonreturning or continuing students, as indicated by their reasons for coming to college and/or leaving it, decision as to intended major, working at a job while attending school, and residence while attending school. Withdrawers did tend to be more undecided about their major fields, to hold more
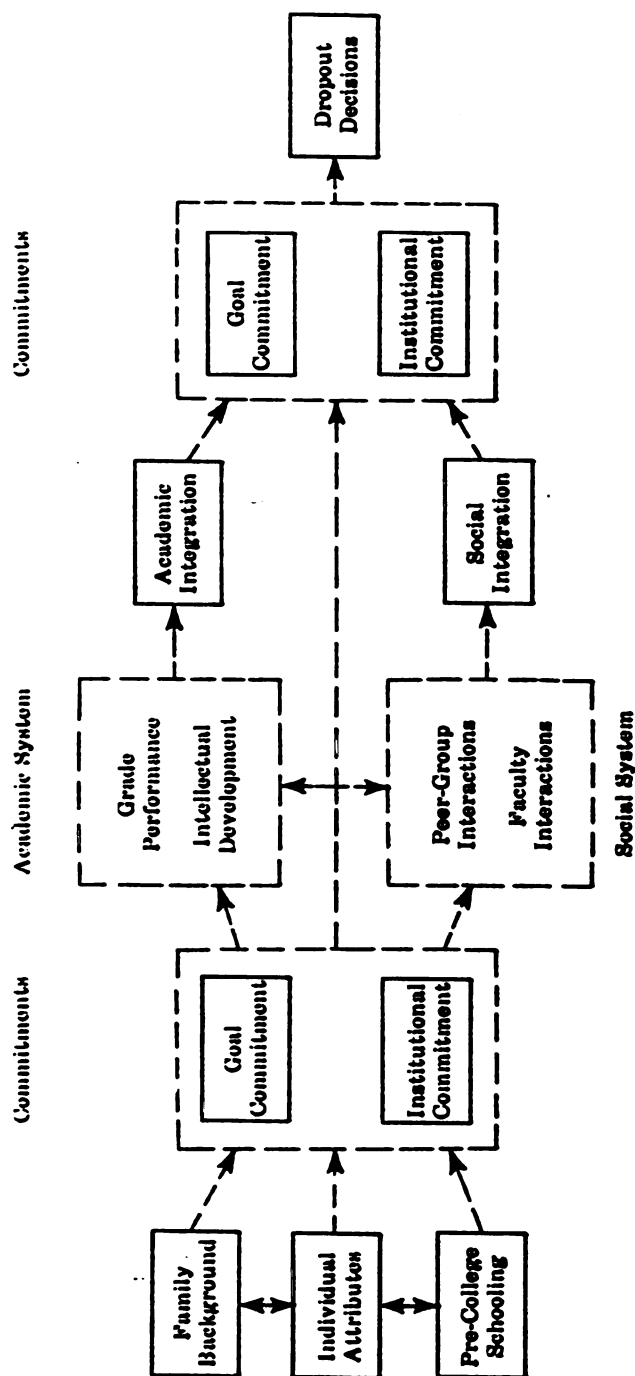
Figure 2.2: A conceptual schema for dropout from college. (From Vincent Tinto, "Dropout From Higher Education: A Theoretical Synthesis of Recent Research," Review of Educational Research 45 [Winter 1975]. Not to be duplicated without permission of the copyright holder.)

full-time jobs during school, to more often live off-campus independently, and to leave school due to off-campus problems, compared to leavers or continuing students. The lifestyle of a withdrawing student appeared to show more commitment to off-campus interests and less to educational goals. The one finding seemingly at variance from this conceptualization arose in the students' reasons for coming to college. Withdrawers more often saw college as enabling them to get better jobs. While this view would seem to indicate a firm goal related to education, an alternative explanation might be that withdrawers were so job-oriented that persisting through difficult academic courses on the way to that goal became onerous and that the off-campus jobs of withdrawers then took on higher priority than the long-term educational goal. There were many reasons for their college withdrawal, but these reasons tended to center on current problems (personal, academic, or school/ work conflict) rather than negative feelings about college or the University of Maryland, Baltimore County (UMBC). The withdrawers were less dissatisfied with UMBC than were continuing students. The off-campus commitments of the withdrawing student were reflected in two other institutional commitment variables: withdrawals often chose UMBC because of its convenient location, and they talked much less to faculty or students than did other student subgroups. Overall, the withdrawals seemed to see college in an adjunct rather than primary position in their lives; whereas UMBC did not dissatisfy them, their lack of goal commitment caused them to withdraw when extracurricular activities conflicted.

Steele (1978) also conducted a study to determine which aspects
of student life might be correlated with retention at the University of
Miami. He decided to compare returning and nonreturning students'
attitudes toward various facets of the university environment. The
major finding of this study was that the area most highly correlated
with retention was the students' perceptions of their progress toward
academic and career goals. This might be due to student achievement in
terms of grades. Another possible cause of dissatisfaction with aca-
demic progress might involve the students' academic goals themselves.
A student may not have a clearly defined goal or may have chosen an
inappropriate goal. Since choosing an academic goal is synonymous with
choosing a major and the university to some extent can influence the
choice of the major, the area of academic goals is one area that might
be affected by institutional policies and programs. With the exception
of planning for college expenses, the areas in assistance in student
planning that were correlated with retention were directly related to
student goals—planning for careers and planning for courses. These
correlations provided support for the importance in retention of the
student's perception of his/her progress toward academic goals and
career goals. In short, the aspect of university life at the Univer-
sity of Miami that appeared to offer the greatest potential for
increasing retention was that of student academic and career goals.

How perceptions of self will affect motivation and achievement
in a particular case depends on the goals that one person might hold.
The term "goal" refers to the motivational focus of the activity.

Maehr (1982) referred to four categories of goals that seem to be of
primary importance in influencing achievement patterns in school:
task, ego, solidarity, and extrinsic rewards. The task goal category
is when one is absorbed in performance and social concerns are mini-
mally present. One performs the task to obtain what is inherently and
intrinsically available in the task itself. Where performance leads,
or whether others approve, is of minimal importance. Ego goals refer
to intentions that revolve around doing better than some socially
defined standard, especially a standard inherent in the performance of
others. Task-oriented goals are at most self-competitive, but ego
goals are explicitly socially competitive. Achieving the goal inevi-
tably involves beating someone, doing better than another, winning, or
being the best. Social solidarity goals are not always thought of as
achievement goals. When one holds a solidarity goal, faithfulness is
more important than doing the task for its own sake. Faithfulness is
more important than doing the task to show that one is better than
someone else. Demonstrating good intentions is an acceptable means of
gaining social approval, not only in various stations in life, but most
specifically in the classroom. Extrinsic rewards refer to a class of
goals that are often designated as associated with earning money, a
prize, or some other desideratum, not inherent in the performance of
the task itself. These goals are viewed as a means to facilitate
reaching other personal and more intrinsic goals.

While certain action possibilities, sense of self, and goals
may be viewed as mediating factors most directly responsible for
determining motivation and personal investment, one may think of
meaning and personal investment as having their source in the dual
factors of _situation_ and _person_ and in a complex of personal-situation
interactions. The four antecedent categories of task design, personal
experience, instruction, and sociocultural context serve as a model to
clarify how the individual comes to view himself/herself and a specific
situation in a way that he/she will invest his/her best efforts there.
It seems evident that cognitive development would play a major role in
modifying the function of these factors. Suggested more directly by
the figure is the proposition that different external factors are
likely to affect the various components of meaning differentially.
Thus, _previous learning_ and _personal experience_ are likely to have a
major impact on one's sense of self, whereas instructional programs and
the broader sociocultural milieu of which the student is a part would
be especially important in defining action possibilities. While one
may surmise that external factors may be differentially important in
this way, the fact of the matter is that it is difficult to separate
cause and effect so simply. Motivation is complex and multidetermined.
Therefore, it is regularly considered a product of a combination of
factors.

A perspective that is basic to effective career counseling
and advising is an understanding of how college students develop

vocationally, cognitively, morally, and ethically. Perhaps the best-known career-development theory is that of Super (in Gordon, 1981), who postulated five vocational life stages: growth (birth-age 14), exploration (age 15-24), establishment (age 25-44), maintenance (age 45-64), and the decline stage (65 and older). Each stage is characterized by a series of vocational tasks and behaviors society expects an individual to accomplish. Super identified these tasks as crystallizing a vocational preference, specifying it, implementing it, stabilizing in the chosen vocation, consolidating one's status, and advancing in the occupation.

Super's concepts provide the counselor or academic advisor with a better understanding of the stages, attitudes, and behaviors involved in the lifelong vocational development of the individual. Super's larger picture helps us understand the high school and college student and the increasing numbers of older adults in the process of mid-career changes. It is within this context that two other developmental theories will be examined: the student-development theory of Perry and the career-decision-making theory of Tiedeman. These theories have been chosen because they describe the student in terms of cognitive development and decision making.

Perry (in Gordon, 1981) found that students' reports of their college experiences seem to manifest a logical order over their four years of college. He described the student's cognitive processes as taking place in a series of nine stages or positions which are in a

natural sequence of development. Perry's nine positions have been simplified into the four stages outlined below. The dualistic student enters college with a simplistic approach to reasoning. The student perceives the counselor or the teacher as the authority with the right answer. Dualistic students' loci of control are external, so it is natural for them to ask for the test that will decide for them which college major or career to follow. Because the dualistic student's perception of the world is absolute, no self-processing is evident.

The second stage is entitled multiplicity. As students move upward into the next positions (stages), they begin to take more responsibility for their own learning. Multiplistic students now understand the possibility of right or wrong career decisions. Because this may cause anxiety, they turn to the counselor or advisor to elimi-nate the dissonance and reduce the possibility of a wrong decision. Multiplistic students acknowledge that multiple good choices do exist and they realize that evaluating all the choices is part of the decision-making process. At this stage students begin to understand that their advisor or counselor does not have the right answer and they begin to question the process itself.

Relativism is the third stage. Students moving into the relativistic positions are able to synthesize diverse and complex elements of reasoning. They have made a decision and are finally in charge of their own lives. Life choices are tailored to their own needs and interests. Uncertainty is finally accepted as legitimate.

Commitment is the last stage. Few individuals reach the commitment stages while in college. At commitment career choices become a conscious part of the individual's identity. In the final position, according to Perry, the individual recognizes commitment as an on-going process that requires continual effort to integrate new experience and knowledge.

Although most undecided students may be found in the dualistic and multiplistic positions, the relativistic and commitment stages have been briefly described to indicate the progression from a closed perspective of decision making and accompanying responsibility to a more open and pluralistic view of alternatives. Ultimately, there is a commitment to one career alternative and a realization of one's potential.

Another theoretical framework that can enlighten our understanding of the undecided student is that of Tiedeman (in Gordon, 1981). Tiedeman defined career as the imposition of direction into the vocational behavior of a person, which is subject to his comprehension and will. According to Tiedeman, we are confronted at many points in our lives with environmentally caused study and work discontinuities. These discontinuities are caused by transition events that call for career-related decisions. Central to Tiedeman's view of career is that we are responsible for our own behavior at these decision points and are capable of purposeful action. This paradigm of the processes of differentiation and integration in problem solving is rooted in seven stages of career decidedness. The first four stages are incorporated

in the anticipatory or planning stage, while the last three are seen as aspects of implementation or adjustment. We are mostly concerned with the first four stages when discussing undecided students because they are concerned with planning. The first four stages are known as exploration, crystallization, choice, and clarification.

Exploration. In the initial stage, students are vaguely anxious about the future but they are unable to identify a plan of action. Students at this stage cannot verbalize what they do not want in a career. They have no negative choices.

Crystallization. Some progress is being made toward a choice in this stage because students are now able to recognize alternatives. They are able to discern the advantages and disadvantages of options and are able to recognize possible conflicts.

Choice. At this point students commit themselves to a particular major, consequently feeling a sense of satisfaction and relief. They are now more optimistic about their future. They begin to formulate a plan of action to implement their career goals.

Clarification. The consequences of their choices are now internalized. They realize they have made a definite commitment. Images of self and future are now elaborated and perfected.

The action stages of induction, reformation, and integration occur as one lives out the decisions and successfully synthesizes the images of self with those decisions.

Although the three theorists, Super, Tiedeman, and Perry, discussed different aspects of the career-decision-making process,

their concepts can be integrated when applied to the individual student. Super looked at the lifelong developmental process and outlined the vocational tasks that need to be accomplished at each stage in order to move toward vocational maturity. Tiedeman further refined this notion by using decision making as a critical aspect of this process. Super and Tiedeman helped us understand what the tasks are and when society expects them to be completed. Perry, on the other hand, described how and when the individual student is ready developmentally to accomplish these tasks.

Figures 2.3 and 2.4 compare the content of each theory and illustrate how these three theories may be integrated on a life-line spectrum. Undecided students are in many stages of vocational development, but counselors and teachers can provide the structure and support needed to challenge students to move into the next level of vocational maturity. Career planning and counseling services must provide environments in which students may learn to honestly examine their strengths, set goals, design plans of action, and continually evaluate their progress. Rather than viewing uncommitted students as having personality or ability differences, we may acknowledge them as displaying different levels in the developmental processes.

Levinson (in Baldwin, 1979), in The Seasons of a Man's Life, pointed out how human beings continue to change throughout their lifetimes according to an age-linked timetable. He identified four overlapping developmental periods in the adult life cycle, each lasting some 25 years, punctuated or separated by five transitions. Levinson

SUPER

Crystallization of a vocational preference:

vague preferences
beginning to formulate ideas about fields and levels of work
formulating self concept as related to occupations

Specification of a vocational preference:

converts generalized choice into specific choice
attitude toward commitment to choice
next goal is in mind

Implementation of a vocational preference:

converts specified choice into reality
goal-directed behavior
goals are centered around entry job

Stabilization in a vocation:

work compatible with abilities, interests and aspirations
secures place in chosen occupation, i.e., settles down

Consolidation & advancement in vocation:

firmly established in occupation
greater security and comfort
career patterns are clear

TIEDEMAN

Exploration:

aware problem exists
number of different goals or alternatives considered
fields are highly imaginary and not related
lack of information about self and occupational area
lack of decision making skills
are not motivated or pressured to explore options

Crystallization:

alternatives are identified and organized
realize need more information about alternatives
patterns emerge
advantages and disadvantages ascertained
process of valuing and ordering takes place
may need to explore a number of options within a field
are not ready to publicly commit themselves to a choice

Choice:

degree of uncertainty varies
decision based on accurate and realistic information
sense of satisfaction and relief is felt
begin to formulate a plan of action

Clarification:

former doubts disappear
decision is now well thought out
elaborate and perfect image of future
details are planned and next steps for following through formulated

Induction:

reality contact with new work environment
accommodates to new group of people and new situation
need to feel some level of acceptance by group
identifies with group through assimilation of one's values and goals into group's values and goals
acceptance by group
goals are perfected

Reformation:

assertive interaction with environment
highly involved in group
tries to bring group's values, goals and purposes into greater conformance with own
lack of objectivity—strong sense of self
group's values, goals and purposes are modified

Integration:

greater objectivity toward self and group's purposes
synthesis of group and individual through collaborative activity
successful image of self, group considers one successful
older group members react against new member's force for change

PERRY

Dualistic students:

see world in polar terms, i.e., right vs wrong
are looking for simplistic answers
see Authority (teacher, counselor, adviser) as having right answer
knows hard work and obedience pays off
are externally controlled
sees diversity of opinions as confusion on part of poorly qualified Authority

Multiplistic students:

are capable of more complex reasoning
begin to see cause and effect relationships
know uncertainty is unavoidable
diversity is legitimate because Authority hasn't found the answer yet
are externally controlled
sometimes puzzled by Authority's standards
"everyone has a right to their own opinion"

Relativistic students:

can synthesize diverse and complex elements of reasoning
have internal locus of control
view selves as prime focus in decision making
are capable of analytical reasoning
view uncertainty as legitimate
knows must orient self in relativistic world through some form of personal commitment in some area

Committed people:

accept pluralistic world
makes commitment to certain area
are committed to establishing their identity
are committed to the content and style of that identity once established
commitment expanded or remade in new terms as growth
sense of being "in" one's self

Figure 2.3: Summary of postulated stages and tasks by Super, Tiedeman, and Perry as they relate to career development. (From Virginia N. Gordon, "The Undecided Student: A Developmental Perspective," Personnel and Guidance Journal 59 [March 1981]. Not to be duplicated without permission of the copyright holder.)
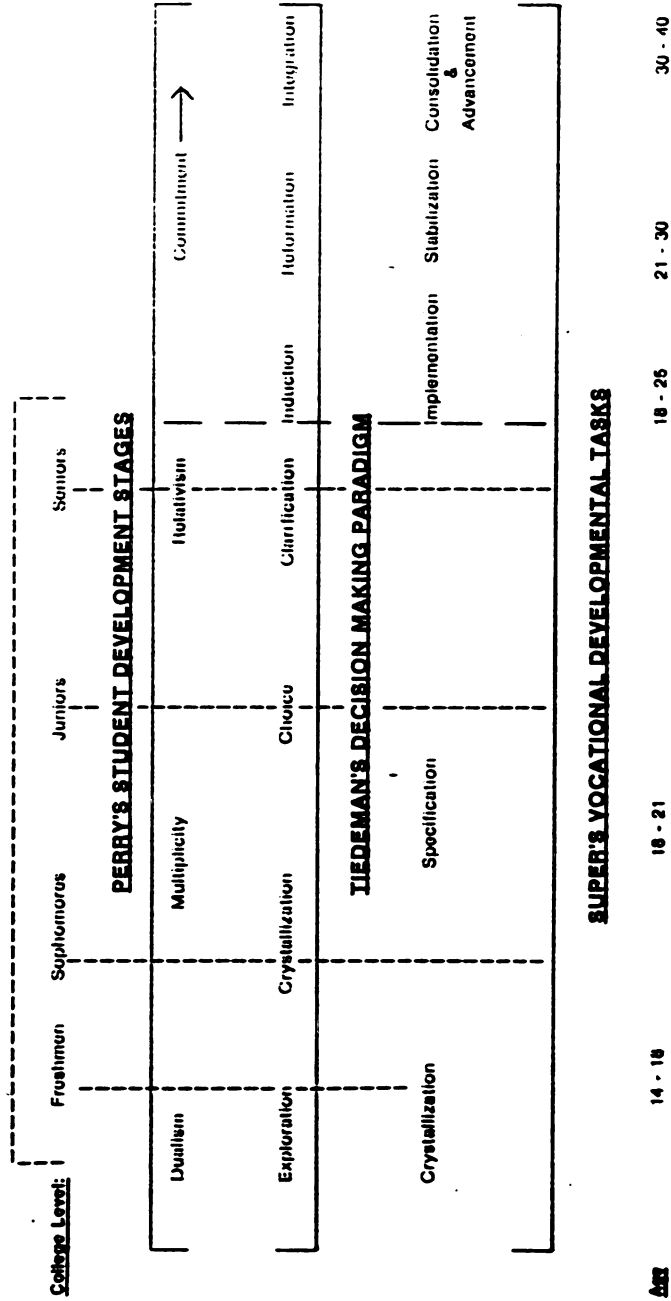
Figure 2.4: Career and student development stages and tasks. (From Virginia N. Gordon, "The Unde-cided Student: A Developmental Perspective," *Personnel and Guidance Journal* 59 [March 1981]. Not to be duplicated without permission of the copyright holder.)

found that man traverses the periods in a given order and must deal with the developmental tasks appropriate to each stage. Each developmental period is distinguished by its own life style, which has biological, psychological, and social aspects. Levinson concluded that adulthood is composed of alternating periods of stability and transition. In a stable period (6-7 years), a person works to build a satisfactory life structure. The life structure is the design or pattern of a person's life at any one time. The adult must make important decisions about her or his life style and direction and then work to pursue personal values and goals within the structure he or she has formed. Eventually, however, the assumptions, conditions, and behavior patterns of a stable period become inadequate to cope with changed circumstances in life. At this point the adult must enter a transitional period (4-5 years). Now the individual assesses her or his previous life situation and typically begins to alter her or his previous life structure. A transitional period can be an uncomfortable or even threatening time. A person must consider what elements of one's life to maintain and which to redefine or abandon. Levinson saw this sequential process continuing through the entire adult period. Each of the phases he defined presents unique tasks and thus encourages the individual to continue developing.

Sheehy supported Levinson's theoretical model of transitions when she spoke of marker or critical events in her book entitled Passages. Marker or critical events create a need to change as a result of an experience related to the age-link timetable. With each

ERAS AND
DEVELOPMENTAL PERIODS
IN EARLY AND MIDDLE
ADULTHOOD

Developmental Periods

70   (Late Adulthood)

65

LATE-ADULT TRANSITION

60

Culmination of
Middle Adulthood

55

Age 50 Transition

50

Entering
Middle Adulthood

45

MID-LIFE TRANSITION

40

Settling Down

33

Age 30 Transition

28

Entering
the Adult World

22

EARLY ADULT TRANSITION

17

(Childhood and
Adolescence)

Middle
Adulthood
Age 40-65

Early
Adulthood
Age 17-45

Pre-
Adulthood
Age 0-22

Figure 2.5.--The seasons of a man's life. (Adapted from Daniel J.
Levinson, The Seasons of a Man's Life, New York: Knopf,
1978. Not to be duplicated without permission of the
copyright holder.)

16–23 Late Adolescence and Youth	23–35 Early Adult- hood	35–45 Midlife Transition	45–57 Middle Adulthood	57–65 Late-Adult Transition	65 + Late-Adult- hood
Achieving emotional independence Preparing for marriage and family life Choosing and preparing for a career Developing an ethical system					
	Deciding on a partner Starting a family Managing a home Starting in an occupation Assuming civic responsibilities				
		Adapting to a changing time perspective Revising career plans Redefining family relationships			
			Maintaining a career or developing a new one Restabilizing family relationships Making mature civic contributions Adjusting to biological change		
				Preparing for retirement	
					Adjusting to retirement Adjusting to declining health and strength Becoming affiliated with late-adult age groups Establishing satisfactory living arrangements Adjusting to the death of a spouse Maintaining integrity

Figure 2.6.—Developmental tasks of the adult years. (Adapted from Arthur W. Chickering and Associates, The Modern American College, San Francisco: Jossey-Bass, 1981. Not to be duplicated without permission of the copyright holder.)

critical event, a transition comes into being. Transition is change that promotes growth, challenge, stress, self-development, and opportunity for learning. Schlossberg (1981) described these marker events in her model for analyzing human adaptation to transition. These critical event perceptions were described as:

1. Voluntary versus involuntary

2. Endogenous versus exogenous

3. Favorable versus unfavorable

4. Role gain versus role loss

5. Permanent versus temporary

6. On time versus off time

7. High versus moderate stress

8. Anticipated versus unanticipated

The descriptions listed above can help one understand how a transition often creates change and develops a need to become involved in educational activity, in order to cope with both transition and the new life structure. Knox believed that educative activity is one way adults deal with changes. When a change occurs, the need for some adaptation produces, for some adults at least, a heightened readiness to engage in educative activity. The resulting educative activity may be directly or indirectly related to the change event, and the relation may or may not be recognized by the individual.

Aslanian and Brickell (1980) believed that there are potential adult learners who plan, want, or need to learn but who will not learn unless there are specific events in their lives to trigger their

decisions to begin learning at a particular time. Some identifiable
event triggers an adult's decision to learn at a particular time. The
need and the opportunity and even the desire are necessary but not
sufficient. Something must happen to convert a latent learner into an
active learner. The effect of an event is to cause the adult to begin
learning at that time rather than at an earlier or later time. Eighty-
three percent of the learners in Aslanian and Brickell's study
described some past, present, or future change in their lives as rea-
sons to learn. Thus, the topic of learning is always related to the
transition.

Havighurst (in Chickering & Associates, 1981) defined two basic
aspects of education, both of which are essential for lifelong learn-
ing. They are the instrumental and the expressive. Instrumental
education means education for a goal that lies outside and beyond the
act of education. In this form education is an instrument for changing
the learner's situation. Instrumental education is a kind of invest-
ment of time and energy in the expectation of future gain. Expressive
education means education for a goal that lies within the act of learn-
ing or is so closely related to it that the act of learning appears to
be the goal. Expressive education is a kind of consumption of time and
energy for present gain.

In a changing society a competent person needs to make a
combination of instrumental and expressive learning at every stage of
his life. Two ways of thinking about development during adulthood seem
promising. One is to think of the developmental tasks of this segment

of life. A developmental task is set by three forces: the force of biological development, the force of social demands and expectations, and the force of personal ambition and aspiration. In adulthood the social demands and personal aspirations dominate in setting and defining developmental tasks, with the biological changes of middle age and later maturity probably asserting a major force in the years after 50. The other way of thinking about development during adulthood is to conceive of adult life as consisting of a set of changing social roles. A social role is a complex of behavior appropriate to a given position in social life, defined by the expectations of society and of the individual. Some common social roles of interest to adult educators are:

worker   neighbor
parent   friend
spouse   club or association member
homemaker   church member
citizen

Each of these social roles can be defined for young adults, middle-aged adults, and older adults, and educational programs can be conceived to help people improve their performance of these roles.

Havighurst stated that adult education today is mainly a middle-class operation. Working-class people generally are more traditional, less given to conscious adjustment to social change, and less likely to engage in self-initiated study. They are less engaged than middle-class people in the workings of the modern society. There are educational needs not now met by adult education. The people with these needs are largely either in the working-class part of society or

past 50 years of age. The challenges to education of adults as seen on the basis of the analysis are:

1. To find ways of extending adult education beyond its instrumental forms into forms that have more expressive or intrinsic values.

2. To find ways of serving more people beyond the age of 50.

3. To find ways of serving more working-class people.

According to Weathersby, education is a developmental intervention in adults' lives, an activity that is by its very nature linked to processes of growth, development, change, and transformation. Education and educational institutions can serve as supportive environments for individuals in life transitions. An educational institution provides a setting for assembling and changing one's life structure. Choices about work, relationships, family and leisure—all of which are components of a life structure—can be influenced by the ideas, practical knowledge and skills, and opportunities provided either for building a life structure or making a transition.

We now have an opportunity to rethink the role of education in mediating life-structure transitions and in enabling people in middle and late adulthood to find resources for restructuring their lives. McCoy's chart (in Chickering & Associates, 1981) illustrates that education has uses in every stage of the life cycle (see Figure 2.7). Every stage of life in modern society requires a person to learn new things if he is to live up to his own aspirations and the expectations that others have of him. That is why there is so much emphasis now on

Developmental Stages	Tasks	Program Responses	Outcomes Sought
Leaving home 18-22	1. Break psychological ties 2. Choose careers 3. Enter work 4. Handle peer relationships 5. Manage home 6. Manage time 7. Adjust to life on own 8. Problem-solve 9. Manage stress accompanying change	1. Personal development, assertive training workshops 2. Career workshops; values clarification; occupational information 3. Education/career preparation 4. Human relations groups 5. Consumer education/homemaking skills 6. Time/leisure use workshop 7. Living alone; successful singles workshops 8. Creative problem solving workshops 9. Stress management, biofeedback, relaxation, TM workshops	1. Strengthened autonomy 2. Appropriate career decisions 3. Successful education/career entry 4. Effective social interaction 5. Informed consumer, healthy homelife 6. Wise use of time 7. Fulfilled single state, autonomy 8. Successful problem solving 9. Successful stress management, personal growth
Becoming Adult 23-28	1. Select mate 2. Settle in work, begin career ladder 3. Parent 4. Become involved in community 5. Consume wisely 6. Home-own 7. Socially interact 8. Achieve autonomy 9. Problem-solve 10. Manage stress accompanying change	1. Marriage workshops 2. Management, advancement training 3. Parenting workshops 4. Civic education; volunteer training 5. Consumer education; financial management training 6. Home-owning, maintenance workshops 7. Human relations groups, TA 8. Living alone, divorce workshops 9. Creative problem solving workshops 10. Stress management, biofeedback, relaxation, TM workshops	1. Successful marriage 2. Career satisfaction and advancement 3. Effective parents; healthy offspring 4. Informed, participating citizen 5. Sound consumer behavior 6. Satisfying home environment 7. Social skills 8. Fulfilled single state, autonomy 9. Successful problem solving 10. Successful stress management, personal growth

Figure 2.7: Adult life cycle tasks and educational program responses. (Cited in Arthur W. Chickering and Associates, The Modern American College, San Francisco: Jossey-Bass, 1981. Not to be duplicated without permission of the copyright holder.)

Developmental stages	Tasks	Program Responses	Outcomes Sought
Catch-30 29-34	1. Search for personal values 2. Reappraise relationships 3. Progress in career 4. Accept growing children 5. Put down roots, achieve "permanent" home 6. Problem-solve 7. Manage stress accompanying change	1. Values clarification 2. Marriage counseling and communication workshops; human relations groups; creative divorce workshops 3. Career advancement training, job redesign workshops 4. Parent-child relationship workshops 5. Consumer education 6. Creative problem solving workshops 7. Stress management, biofeedback, relaxation, TM workshops	1. Examined and owned values 2. Authentic personal relationships 3. Career satisfaction, economic reward, a sense of competence and achievement 4. Growth producing parent-child relationship 5. Sound consumer behavior 6. Successful problem solving 7. Successful stress management, personal growth
Midlife reexamination 35-43	1. Search for meaning 2. Reassess marriage 3. Reexamine work 4. Relate to teenage children 5. Relate to aging parents 6. Reassess personal priorities and values 7. Adjust to single life 8. Problem-solve 9. Manage stress accompanying change	1. Search for meaning workshops 2. Marriage workshops 3. Mid career workshops 4. Parenting: focus on raising teenage children 5. Relating to aging parents workshops 6. Value clarification; goal setting workshops 7. Living alone, divorce workshops 8. Creative problem solving workshops 9. Stress management, biofeedback, relaxation, TM workshops	1. Coping with existential anxiety 2. Satisfying marriages 3. Appropriate career decisions 4. Improved parent-child relations 5. Improved child-parent relations 6. Autonomous behavior 7. Fulfilled single state 8. Successful problem solving 9. Successful stress management, personal growth
Restabilization 44-55	1. Adjust to realities of work 2. Launch children 3. Adjust to empty nest 4. Become more deeply involved in social life 5. Participate actively in community concerns 6. Handle increased demands of older parents	1. Personal, vocational counseling, career workshops 2. Parenting education 3. Marriage, personal counseling workshops 4. Human relations groups 5. Civic and social issues education 6. Gerontology workshops 7. Leisure use workshops	1. Job adjustment 2. Civil letting go parental authority 3. Exploring new sources of satisfaction 4. Effective social relations 5. Effective citizenship 6. Better personal and social adjustment of elderly 7. Creative use of leisure 8. Sound consumer behavior

Figure 2.7: Continued.

7. Manage leisure time
8. Manage budget to support college-age children and ailing parents
9. Adjust to single state
10. Problem-solve
11. Manage stress accompanying change

8. Financial management workshops
9. Workshops on loneliness and aloneness
10. Creative problem solving workshops
11. Stress management, biofeedback, relaxation, TM workshops

9. Fulfilled single state
10. Successful problem solving
11. Successful stress management, personal growth

Preparation for retirement 56-64

1. Adjust to health problems
2. Deepen personal relations
3. Prepare for retirement
4. Expand avocational interests
5. Finance new leisure
6. Adjust to loss of mate
7. Problem-solve
8. Manage stress accompanying change

1. Programs about nutrition, health
2. Human relations groups
3. Preretirement workshops
4. Art, writing, music courses in performing and appreciation; sponsored educational travel
5. Money management training
6. Workshops on aloneness and loneliness, death and dying
7. Creative problem solving workshops
8. Stress management, biofeedback, relaxation, TM workshops

1. Healthier individuals
2. Effective social skills
3. Wise retirement planning
4. Satisfaction of aesthetic urge; broadening of knowledge; enjoyment of travel
5. Sound consumer behavior
6. Adjustment to loss, fulfilled single state
7. Successful problem solving
8. Successful stress management, personal growth

Retirement 65+

1. Disengage from paid work
2. Reassess finances
3. Be concerned with personal health care
4. Search for new achievement outlets
5. Manage leisure time
6. Adjust to more constant marriage companion
7. Search for meaning
8. Adjust to single state
9. Be reconciled to death
10. Problem-solve
11. Manage stress accompanying change

1, 4, 5, 6. Workshops on retirement, volunteering, aging; conferences on public issues affecting aged
2. Financial management training
3. Health care programs
7. Religious exploration
8. Workshops on aloneness and loneliness
9. Death and dying workshops
10. Creative problem solving workshops
11. Stress management, biofeedback, relaxation, TM workshops

1, 4, 5, 6. Creative, active retirement; successful coping with life disengagement; public policies responsive to needs of aged
2. Freedom from financial fears
3. Appropriate health care
7. Help in search for life's meaning, values of past life
8. Fulfilled single state
9. Philosophic acceptance of death, help in caring for dying and handling of grief
10. Successful problem solving
11. Successful stress management, personal growth

Figure 2.7: Continued.

educating the mind as an instrument of learning rather than a storehouse of knowledge.

Self-Concept

The self is the frame of reference for all perception and behavior. It is a window from which the person sees life and the world (Elkins, 1978). Each person, whether conscious of it or not, carries about a mental blueprint or picture of himself. The blueprint is composed of a system of interrelated ideas, attitudes, values, and commitments that are influenced by our past experiences, our successes and failures, our humiliations, our triumphs, and the way other people reacted to us, especially during our formative years. Eventually each person arrives at a more or less stable framework of beliefs about himself and proceeds to live in as consistent a manner as possible within that framework. In short, an individual acts like the sort of person he conceives himself to be (Hamachek, 1978).

According to Combs (1979), the concepts of self constitute an organization representing a person's own conception of himself in all his complexity. This organization of all the ways a person has of seeing himself is known as the phenomenal or perceived self. It is a patterned interrelationship or Gestalt of all self-perceptions and is the person as he seems to himself. An individual's perceptual field is illustrated in Figure 2.8. The perceptual field, represented by the large circle C, includes all of a person's perceptions, including those about himself and those about things outside himself (the not self or the phenomenal environment). Within the total perceptual field the

second and smaller circle B represents all perceptions of self,
irrespective of their significance. This circle, which is labeled the
phenomenal self, encompasses all self-perceptions in a particular
situation. The phenomenal self is always a self in a given situation.
To describe the organization of the central perceptions of self
involved in a great deal of a person's behavior, it is sometimes
helpful to differentiate from the total perceptual field those most
vital to the person himself (Circle A). We call this organization the
self—concept. The self-concept is the very essence of "me," whose loss
is regarded as personal destruction. Whatever these concepts are for
any individual, they are the very core of personality. The self-
concept is the self at all times and in all situations.
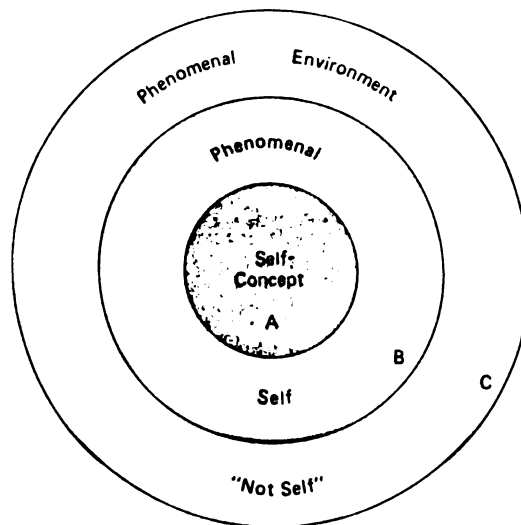
Figure 2.8: Definition of self-concept. (From A. W. Combs, Percep-
tual Psychology--A Humanistic Approach to the Study of
Persons, New York, Harper & Row, 1979. Not to be dupli-
cated without permission of the copyright holder.)

The self as an integrated whole is comprised of all aspects of the individual's nature and potential. This self must be achieved through a lifelong struggle, a process that requires strength and courage. For Jung (in Dichstein, 1977), the self is the center, the point of balance between every aspect of the conscious and unconscious psychic life. All our highest and ultimate purposes seem to be striving toward it. The process through which the self is attained is called individuation. Individuation means becoming a single, homogeneous being, and, insofar as individuality embraces our innermost, last, and incomparable uniqueness, it also implies becoming one's own self. Therefore, individuation can be translated as coming to selfhood or self-realization.

Allport's (in Dichstein, 1977) theory of the self is similar in several respects to Jung's more encompassing theory. When referring to the self, Allport used the word "proprium," defined as that which includes all aspects of the personality that make for inward unity. While the proprium develops through several stages, the stage most similar to, although not equivalent to, the Jungian notion of the individual is that of the appropriate striving. Appropriate striving is the process through which an individual dedicates his life to the achievement of an ultimately unattainable, tension-inducing, ego-involving goal. It gives purpose and unity to the individual's existence.

The similarity of self-realization as discussed by Rogers and Maslow supports the concepts of Jung and Allport quite clearly.

Self-realization, as defined by Rogers (in Rotter & Hochreich, 1975), includes not only the satisfaction of biological needs and the learning of skills necessary for physical and social survival, but also development toward autonomy, independence, and a growing sense of self-determination. Self-actualization is Rogers' motivational construct, the single goal toward which all persons strive.

Like Rogers, Maslow's theory (in Rotter & Hochreich, 1975) is holistic in nature. He viewed the individual as an integrated, organized whole. Maslow assumed that almost all our acts and conscious wishes represent multiple motivations rather than serving one need at a time. For this reason, it is necessary to study relationships among motivations rather than focusing on isolated drives or desires. Once a desire is satisfied, another desire emerges to take its place. Human wants or needs seem to be arranged in a kind of hierarchy in which some motivations must be satisfied before other motivations appear.

The self-definition is a creation of society. With a self-defining goal a person is acknowledged for possessing a certain essence or human quality that has implications for future behavior. In moving toward a self-defining goal the issue is not to have something out of the way, but instead, it is to build a certain status quo. Self-definitions may be seen as having two crucial characteristics:

1. The self-definition is perceived in the eyes of the person pursuing it, as a condition of potential for behavior that will ideally become a permanent part of one's self. To complete the self, in regard to any specific self-definition, is to establish a condition of

embodying the idea characteristics of the runner, the Spanish speaker, or the humanitarian.

2. The pursuit of a self-definition has a goal-directed character. The person does not wait until indications of the self-definition emerge, but there is an active movement toward completing the self-definition, using symbols to indicate one's attainment (Wicklund & Gollwitzer, 1982).

The construction and preservation of a self-definition depend heavily on the person's use and possession of symbols of completeness. A symbol of completeness is a word, gesture, behavior, or physical entity that potentially signals to others one's self-definitional attainment. Each self-definition may be viewed as composed of a set of symbols appropriate to it (Wicklund & Gollwitzer, 1982).

A disruption is any hindrance the individual encounters in working toward a self-definition. If a self-definition is composed of multiple symbols, and this system of symbols is defined within the community, disrupted individuals will evaluate the self in line with the way society would view their standing on the self-definitional dimension. Thus the falling short in regard to a symbol will be experienced as a negative self-evaluation with respect to the self-definition in question (Wicklund & Gollwitzer, 1982).

The disruption leads directly to a self-reflective condition, one in which the person is evaluative with respect to the self-defining dimension. This state is a motivated one, whereby the individual sets out impatiently in the direction of a substitute symbol. If the

self-definition is indeed constituted through a set of alternative possible symbols, the person stands to gain completeness no matter which symbol is displayed. Another way of viewing the substitution idea is that those who meet failure in one mode of self-symbolizing are not forced to give up in the quest for completing a self-definition. Instead, they can (and are motivated to) move immediately to one of the other numerous routes to self-completion. The channeling of the motivation is best viewed as a hydraulic system whereby the tension associated with the incomplete self-definition is directed into a type of self-symbolizing that substitutes for the original, interrupted self-symbolizing (Wicklund & Gollwitzer, 1982).

Wicklund and Gollwitzer's self-symbolic theory can be applied to any human endeavor or condition as long as the following conditions are met:

1. The person must be committed to a self-defining goal.

2. There must be a societally acknowledged set of symbols pertaining to the self-definition.

3. For self-symbolizing to begin, it is necessary that the person experience incompleteness. That is, the person must enter into the evaluative state following an interruption of progress toward the self-defining goal.

4. The individual must have access to at least one route of self-symbolizing.

Central to Beery's model (in Covington & Beery, 1976) is the postulate that students are motivated to enhance, or at least to

protect, a belief in their possession of a subjectively satisfying level of intellectual ability. This motive seems to stem from an implicit link between ability and a sense of personal worth. Given such an internalized assumption, avoidance of ability-threatening experiences naturally assumes powerful importance. Combining this motivational assumption with the cognitive perspective of attribution theory, a wide variety of failure-avoidant strategies can be seen as attempts to avert negative ability attributions, sometimes even at the expense of external performance itself.

The challenge is clear. Not only must schools accelerate the acquisition of knowledge, but they must do it in such a way that students become the masters--not the prisoners--of their knowledge and have the confidence to transform it to their own purposes. In short, confidence and competence must increase together for either to prosper.

Self-worth is the individual's evaluative appraisal of himself. The individual's sense of worth is threatened by the belief that his value as a person depends on his ability to achieve and that if he is incapable of succeeding, he will not be worthy of love and approval. This kind of reaction is inevitable in a society like ours where a primary determinant of one's status is the ability to perform. To be able is to be worthy, but to do poorly seems evidence of inability and thus reason to despair of one's worth. For those who are insecure or low in self-esteem, anchoring a sense of worth on ability is a risky step (Covington & Beery, 1976).

Success and failure in school depend on a person's performance relative to his goals and to classroom standards. When an individual's performance falls below those standards, he experiences a sense of failure and tends to judge himself in critical ways. When the individual meets or surpasses the accepted standards, he experiences feelings of success and well-being and judges himself in self-approving ways. It can be said that a person is confident of success when he sees himself as equal to the task and less confident to the extent he believes himself unable to attain the prevailing standards. Basically, then, confidence is the individual's subjective estimate of success. The individual's degree of confidence will vary widely, depending on such things as the perceived difficulty of the task and on how well he feels he should do (Covington & Beery, 1976).

Covington and Beery argued that students should take charge of certain important aspects of their own learning. This involves not so much choosing what they will learn--for there is still a broad consensus as to what skills are necessary for survival in our society--but rather it involves freedom of choice in how to learn. This means allowing students more responsibility in setting their own performance standards, levels of aspiration, and the pace at which they will learn. To allow this kind of freedom, learning must be structured so that it becomes a process of goal setting toward individual, academic objectives. In effect, the student takes responsibility for his own progress with his aspirations always in advance of current achievement, yet not so far ahead that they cannot be attained through persistent effort

and practice. Once the focus shifts toward individual striving, the value of a success depends less on its frequency and more on the risk the individual runs to achieve it.

With this transformation the scale of classroom values tips in favor of such personal qualities as effort, good judgment, and industry, and away from a preoccupation with ability as the ultimate measure of one's worth. In sum, teachers must promote two kinds of excellence. As Gardner (in Covington & Beery, 1976) put it,

> There is a way of measuring excellence that involves comparison between people--some are musical geniuses and some are not; and there is another that involves comparison between myself at my best and myself at my worst. It is this latter comparison which enables me to assert that I am being true to the best that is in me--or forces me to confess that I am not. (p. 93)

Failure does not always imply insufficient effort. Sometimes it signals that personal limits have been reached and that all the confidence and persistence in the world will not change things. Accepting one's limitations gracefully is as important as learning to overcome them. Students must be helped to accept their limitations without devaluing themselves or destroying their will to learn. But more than mere acceptance, students must be encouraged to actually seek out and test their limits. Only in this way can they maintain realistic aspirations in the long run.

If students are to overcome the threat of learning, they must be permitted the freedom to fail. They must feel free to make errors, to ask questions that reveal their ignorance, and to risk trying their hardest. Only then can they truly strive for personal excellence. Teachers, too, must accept their students for what each has achieved

thus far, for the potential each brings to the learning place, and for what each can become. Worth resides in each individual as part of his humanness. It is a given, never divisible nor negotiable. Teachers must also set limits of conduct and establish reasonable standards. Every student is capable of responding to some level of excellence and should be held to these standards. Finally, there is the matter of allowing each student considerable latitude to pursue these standards at his own rate and on his own terms. These three indispensable elements of acceptance, realistic standards, and latitude for learning are recommendations to be considered seriously (Covington & Beery, 1976).

A modern approach to the notion that most students can learn what the schools have to teach has been developed under the rubric of mastery learning. Many versions of mastery learning begin with the notion that most students can attain a high level of learning capability if instruction is approached sensitively and systematically, if students are helped when and where they have learning difficulties, if they are given sufficient time to achieve mastery, and if there is some clear criterion of what constitutes mastery (Bloom, 1976).

The three interdependent variables that are central to Bloom's (1976) theory of school learning are:

1. The extent to which the student has already learned the basic prerequisites to the learning to be accomplished.

2. The extent to which the student is (or can be) motivated to engage in the learning process.

3. The extent to which the instruction to be given is appropriate to the learner.

The theory deals with student characteristics, instruction, and learning outcomes. One of the student characteristics that is believed to be central in determining student learning is the student's Cognitive Entry Behaviors--the prerequisite learning held to be necessary for the learning task(s) on which instruction is to be provided. The second characteristic is the Affective Entry Characteristics--the student's motivation to learn the new learning task(s). The instructional variable of greatest importance is believed to be the Quality of Instruction--the extent to which the cues, practice, and reinforcement of the learning are appropriate to the needs of the learner (Bloom, 1976).

Variations in the Cognitive Entry Behaviors and Affective Entry Characteristics and the Quality of Instruction will determine the nature of the learning outcomes. These outcomes are the level and type of achievement, the rate of learning, and the affective characteristics of the learner in relation to the learning task and self. When the student entry characteristics and the quality of instruction are favorable, all the learning outcomes will be at a high or positive level, and there should be little variation in the measures of the outcomes (Bloom, 1976). The theory is ideally intended to explain the interaction between an individual learner, the instruction, something to be learned, and the learning finally accomplished.
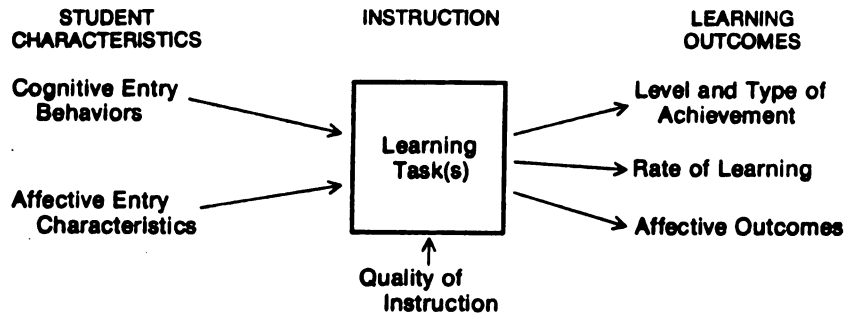
Figure 2.9: Major variables in the theory of school learning.
(From Benjamin S. Bloom, Human Characteristics and School
Learning, New York: McGraw-Hill, 1976. Not to be dupli-
cated without permission of the copyright holder.)

Understanding the interaction between self-concept of ability

and achievement is essential for curriculum development. The curricu-

lum should lead toward clarification of self-concept, improvement of

self-esteem, and clarification of the values upon which self-esteem is

based. Related to these goals are several other more specific purposes

of the curriculum: to develop internal locus of control, self-

direction, independence, and responsibility (Beane, 1982).

Coopersmith (1967) believed that self-esteem is a personal

judgment of worthiness that is expressed in the attitudes the individ-

ual holds toward himself. He defined self-esteem as a reflection of

oneself when he wrote:

Self-esteem is the evaluation which the individual makes and
customarily maintains with regard to himself: it expresses an

attitude of approval or disapproval, and indicates the extent to which the individual believes himself to be capable, significant, successful, and worthy. (p. 26)

Attitudes may reflect an individual's expectancies as to what will occur to him in a new situation. Expectations of success or favorable experiences are likely to result in a confident posture, but expectations of failure and rejection are likely to result in apprehension, anxiety, and lack of persistence. The probability estimates of success and failure presumably reflect the individual's conviction that he is or is not able to deal with the situations that he encounters. These estimates have been associated with risk taking, decision making, and the strategies adopted in problem solving (Coopersmith, 1967).

A study was conducted at the city colleges of Chicago to investigate how individual expectations and self-selected criteria for success correlate with academic self-concept and course achievement (Easton, 1983). At the beginning and end of the fall semester, students enrolled in six basic mathematics classes completed questionnaires containing the Michigan State Self-Concept of Ability Scale, which asks students to compare their math ability with that of their friends, and the National Longitudinal Study of Mathematics Ability Scale, which asks students what they think and feel about their math work. In addition, students were asked, "What grade would make you feel successful in math?" and "What grade do you expect to get in this course?" in order to determine their self-selected criteria for success. Of the 135 women and 39 men initially enrolled in the six courses, 112 students passed with a grade of A to D, 30 failed with

an F, and 32 withdrew or stopped attending class. Approximately 38 per-cent of the sample achieved a grade they indicated would make them feel successful in math, and 53 percent achieved the grade they expected in the course. Students who did as well as they expected or wanted to displayed increased academic self-concept and raised their expectations for themselves, whereas students who did not meet their criteria for success showed no changes in academic self-concept but adjusted their criteria for success.

Self-esteem, which has been defined as one's evaluation of the self, has been shown to be positively associated with educational aspirations in community college students. Prager (1983) found that a positive relationship between educational aspirations and self-esteem may suggest that further understanding of factors associated with self-esteem in community college students could result in more effective outreach programs designed to prevent attrition. Enhancement of self-esteem may be a way to encourage students to increase their educational aspirations because students operating from a base of increased self-worth might be more likely to set goals that reflect their aptitudes. The finding that personal-skills assessment was not related to educational aspirations in returning students indicated that these students may not have viewed their accumulated skills as a measure of how high to set their educational goals. The significant association between personal-skills assessment and educational aspirations in traditional students, however, suggests that these students may well use this information in setting skill-based goals.

If one interprets these findings as supporting the notion that students are using information regarding their grades to help them in setting educational goals, it might reasonably be hypothesized that returning students, rather than assessing their nonacademically derived competencies to help them in setting their goals, may be looking strictly to their goals, may be looking strictly to their academic achievements. The current results may indicate returning students restrict themselves in assessing their potential for further education, using only the grade point average rather than valuing the previous experiences. It might be concluded that although personal-skills assessment is associated with self-esteem for both returning and traditional students, only traditional students consider this assessment relevant to their educational aspirations. Programs that allow students to perceive themselves as having valuable skills and competencies may well be enhancing to self-esteem and may encourage students to set aspirations that better reflect their abilities and maximize their motivation to remain in college (Prager, 1983).

Two variables that have been related to decision making and goal persistence are locus of control and self-concept. Behuniak and Gable (1981) performed a study to explore differences in locus of control and self-concept over time for persisters and changers in six college majors. The significant changes in locus of control and self-concept across time supported the hypothesis that as students view themselves as increasingly successful while approaching graduation, the self-concept becomes more positive and their perception of their

control over the environment becomes more internal. The data from this study suggest that even the expectation of advancing status and earnings, and the perception of increased competencies associated with approaching graduation, can significantly affect students' self-concept and locus of control. Regardless of college major, the experiences that students undergo while in college appear to enhance their feelings of self-worth and control of the environment. The importance of this trend toward more positive self-concepts and more internal locus of control as students approach graduation should be apparent to counselors and students because it indicates the attitudinal payoff that students gain by finishing their programs (Behuniak & Gable, 1981).

Bourne (1976) conducted a study to ascertain whether a basic-skills-development program, an individualized, programmed laboratory experience in which students contracted to work toward a self-defined resolution of their skill deficiencies, would result in a measurable change in the self-concept of high-risk students enrolled in the program at Essex Community College in Maryland. The Tennessee Self-Concept Scale was administered to the 11 students enrolled in the class at the outset and the conclusion of the semester. Student grade points averages (GPA) were also used in the evaluation: Five students showed a decline in GPA compared to the previous semester, three an increase, and for the remaining three there were no comparable data. It was concluded that growth in self-concept was achieved but was not always directly reflected in student GPA. When other variables such as course

load and persistence were considered, a growth relationship could be seen.

Mangieri and Olsen (1976) performed a study to determine whether a relationship exists between reading ability and self-concept of academic ability. The Nelson-Denny Reading Test and the Michigan State Self-Concept of Academic Ability Scale were used for the assessment of 253 freshman, sophomore, junior, and senior college students. Those college students, whether male or female, who were successful in reading, appeared to have a more positive self-concept of academic ability. Those college students who were not proficient in reading, whether male or female, appeared to have a less positive self-concept of academic ability.

Korman (in Bhagat & Chassie, 1978) presented a consistency theory of work motivation that argued that an individual's self-esteem is an important determinant of effective performance and satisfaction. In Korman's words,

> Individuals will be motivated to perform in a manner consistent with their self-images. To the extent that their self-concepts concerning the job or task require effective performance in order to result in consistent cognitions, then, to that extent they will be motivated to engage in effective performance . . . and further-more . . . to the extent that one perceives the self as competent and need satisfying, one will choose and find most satisfying those situations which are in balance with these self-perceptions. (pp. 317-18)

Three sources of self-esteem, namely chronic (or generalized) self-esteem, task-specific self-esteem, and socially influenced self-esteem, have been conceptualized as relatively independent constructs. According to Korman, these three relatively distinct sources of

self-esteem tend to determine a person's level of self-perceived compe-
tence and ability for the task at hand, which in turn directly affects
the level of task performance. The research by Bhagat and Chassie
(1978) was an attempt to examine the role of task-specific self-esteem
and locus of control in the differential prediction of academic per-
formance, program satisfaction, and personal life satisfaction. It was
predicted that (1) high task-specific self-esteem individuals would
perform better, would be more satisfied with their program of studies
and their personal lives compared to low task-specific self-esteem
individuals, and (2) individuals with an internal locus of control
would also perform better, would be more satisfied with their program
of studies and their personal lives compared to individuals with an
external locus of control. The findings were interpreted as being
strongly supportive of Korman's theory on the role of task-specific
esteem and Rotter's theory on the concept of locus of control in the
prediction of certain select organizational outcomes.

Locus of Control

Academic achievement is directly related to a student's desire
or motivation to learn. The difference between success and failure is
primarily dependent on how a person perceives his interaction and
progress with a meaningful environment. Roueche and Mink (1976)
stated that internal-external locus of control refers to a person's
expectations regarding his own ability to derive payoff or success from
his environment. If he perceives that welfare, God, society, or other

uncontrollable forces determine his behavior he is said to have an external control expectancy.

The concept of locus of control defined by Rotter (in Phares, 1973) is descriptive in nature:

> When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual we have labeled this a belief in external control. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control. (p. 2)

According to Rotter, there are four major conditions for learning: (1) there must be a potential for learning to occur; (2) the learner must believe that his behavior will be consistently reinforced; (3) the reinforcement must be relevant to the situation and valuable to the learner; and (4) the psychological situation in which reinforcement occurs must be favorable (Mink, 1979).

The Reality Therapy Process is a composite model that was designed and synthesized by Glasser (in Mink, 1979) to apply this philosophy and to enhance supportive services with students. Glasser encompassed the essential elements in a six-phase process beginning with personal involvement between helpers and helpees (Phase I), moving to a focus upon behavior (Phase II), focusing on the payoff (Phase III), calling for a value judgment—Is that what you want? (Phase IV), asking for a plan (Phase V), and providing for follow-up and replanning if necessary. This figure is illustrated in Figure 2.10.

(2) Identify behavior

(3) Ide ..tify consequences

(4) Make a value judgment   b

(1) Be personal throughout

(5) Formulate a plan   c

(6) Follow plan

(7) Accept no excuses

(8) Don't punish[d]

(9) Repeat process when mutually desirable[a]
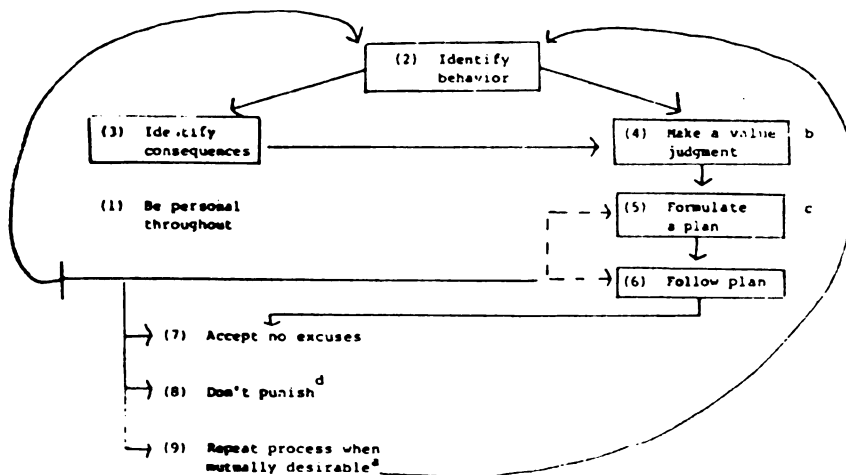
[a]All parties concerned mutually determine the helping relationship. The facilitative process continues or terminates at the option of all concerned persons.

[b]A necessary part of information gathering.

[c]Essential in this step is the process and event of obtaining a contract or commitment.

[d]It is true that sometimes a punishment applied by the teacher or counselor will work. However, punishment is vastly overworked and misused in the lives of failing people in general. It is useless for the longer-term internalization of self-discipline which we seek in developing internal locus of control orientations.

Figure 2.10: Reality therapy process. (Cited in Oscar G. Mink, From Here to Internality: A Function of Learning Groups in the Community College Classroom, Bethesda, Md.: ERIC Document Reproduction Service, ED 184 602, 1979, p. 35. Not to be duplicated without permission of the copyright holder.

The phenomenon of control expectance relates to academic settings, career planning, and work adjustment. Therefore, community college personnel who want to succeed with high risk students must keep in mind these points: (a) Students must have realistic levels of aspirations; (b) Students must see themselves as achievers; (c) Students should expect to succeed; and (d) Students should be provided with life experiences which indicate that they can control the payoffs in life. (p. 36)

In contrast to Rotter's generalized expectancy model, recent attribution models have emphasized situational determinants of perceptions of person causality. Weiner and his associates (in Bar-Tal, 1978) proposed an attributional model based on the assumption that an individual's perceptions of the causes of success or failure are determined primarily by variables specific to the situation in which the causal attribution is made. Individuals have been shown to view the causes of their successes and failures as principally being due to their ability, their effort, the difficulty of the task, and/or good or bad luck. These causal elements can be classified on two dimensions. One dimension differentiates causal elements in terms of their internality/externality. Thus, ability and effort are considered internal because they originate within the person, whereas task difficulty and luck originate outside the person and are therefore considered as external causes. A second dimension differentiates causal elements in terms of their stability over time. Thus, ability and task difficulty are considered stable because they do not vary if the same task is reattempted, but effort and luck are considered highly unstable because they fluctuate over time.

The two dimensions described here, locus of control and stability, have been found to be important in understanding the

affective reactions to the success or failure and the changes in
perceived probability of success for future outcome. Figure 2.11
depicts this process. The locus of control dimension influences the
affective reaction of pride and shame. In a success situation, people
feel maximum pride (self-satisfaction) when they can attribute their
performance to either ability or effort, both internal causes.
Attributions of success to good luck or the ease of the task produce
considerably less pride. Failures attributed to lack of ability or
lack of effort result in shame (self-dissatisfaction), whereas failures
attributed to the difficulty of the task or to bad luck result in
little shame since no personal responsibility is then taken for
failure. The stability dimension affects cognitive changes in
expectancy following success or failure. Thus, when one perceives
one's successes as caused by good luck, the resulting expectancy is
that failures might occur in the future since luck is believed to be an
unstable external factor. Corresponding expectations are found for
attributions to bad luck in situations of failure. Attributions to
lack of effort (an internal unstable cause) in failure situations
result in a higher expectancy for future success than attributions to
stable causes. This is because the implication is that performance
would have been better if more effort had been exerted. Failures
attributed to lack of ability result in low expectancy for future
success since one assumes that one's ability will not increase greatly
and, therefore, that future performance will show little improvement.
Also, because ability is a stable cause, successes attributed to
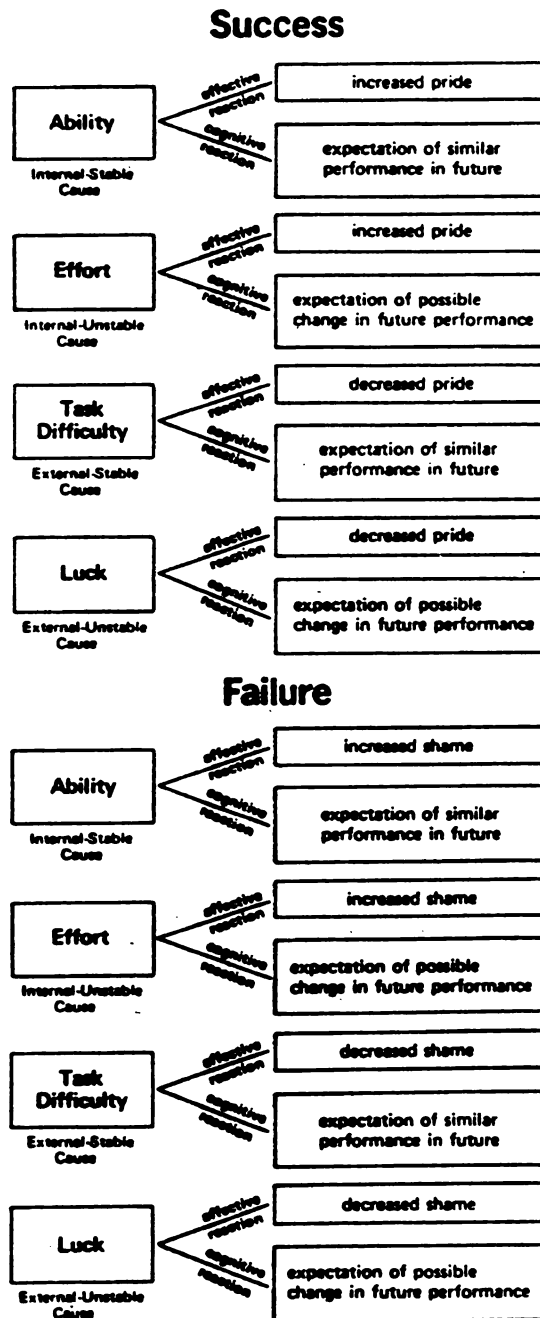
Figure 2.11: Affective and cognitive reactions in situations of success and failure as a function of attributions. (From Daniel Bar-Tal, "Attributional Analysis of Achievement-Related Behavior," Review of Educational Research 48 [Spring 1978]. Not to be duplicated without permission of the copyright holder.)

ability result in high expectancy for future success. According to the same reasoning, attributions of success to ease of task, a stable cause, result in high expectancy for success, and attributions of failure to difficulty of task result in low expectancy for success.

The described model has roots in the Expectancy-Value Theory of motivation and in Rotter's formulation of locus of control. Expectancy-value theorists have postulated that the determinants of intensity of aroused motivation are jointly the expectancy that the reaction will lead to goal attainment and the incentive value of the goal object. Individuals tend to approach goals with high intensity if they perceive high likelihood of their attainment and if the goals are highly attractive. This theory is illustrated and defined in Figure 2.12.

MOTIVATION = f (EXPECTANCY X INSTRUMENTALITY X VALENCE)

where _expectancy_ is the probability that effort will lead to performance (range of 0 to 1)

instrumentality is the extent to which performance will be rewarded (range of 0 to 1)

valence is the value of the reward to the individual (range of -1 to +1)

Figure 2.12: Expectancy theory. (From Judith R. Gordon, _A Diagnostic Approach to Organizational Behavior_, Boston, Allyn and Bacon, 1983, p. 109.)

The relationships between levels of aspiration, attributions for performance, and locus of control are interrelated factors in human

motivation. Samuel and McNall (1981) explored these concepts in a study that had three purposes: (1) to replicate earlier research, which found that subjects had higher levels of aspiration following success rather than failure and that successful subjects tended to attribute their performance to internal factors and unsuccessful subjects to external ones; (2) to add to the traditional success-failure manipulation a no-feedback control condition that would provide baseline data on naturally occurring levels of aspiration and attributions for performance; and (3) to examine once again the possible relationships between the personality dimension of locus of control and level of aspiration, as well as attributions for performance. The subjects were 45 male and 45 female undergraduates whose participation fulfilled a course requirement in introductory psychology at California State University, Sacramento. After receiving success, failure, or no feedback on a concept-formation task, the subjects were asked what level of performance they anticipated on a subsequent test and the extent to which they attributed their previous performance to ability, effort, luck, or task difficulty. The subjects also completed Rotter's scale for belief in internal/external control of reinforcement. Subjects in the successful group had a higher level of aspiration than those given no feedback. Both groups predicted higher scores than did subjects who experienced preliminary failure. Individuals who succeeded tended to attribute their performance to ability and effort, whereas those who failed tended to choose luck and task difficulty. Individuals who were given no feedback on the task generally followed their internal or

external personality dispositions in making task attributions. The findings suggested that when working on a novel task, individuals tended to use their present performance to determine their level of aspiration.

The self-worth theory of achievement motivation proposes that individuals strive to maintain a self-perception of high ability and that feelings of self-worth derive primarily from the belief that one is able. Covington and Omelich reasoned that since failure despite high effort may implicate low ability as a causal factor, expending effort poses a potential threat to an individual's need to preserve a sense of competency. To investigate student preferences for ability or effort and their relationship to self-worth, and to assess the relative contribution of ability and effort to affective experience, two separate studies were undertaken. In Brown's (1983) first study, 148 college students were asked if they preferred to succeed or fail with high ability-low effort, or with low ability-high effort, in both school and work. In the second study, 64 college students rated the relative contribution of ability and effort to their midterm examination performance and subsequently rated the extent to which they felt pride (given success) and shame (given failure). An analysis of the results showed that both ability and effort contributed to feelings of self-worth, with high ability preferred over high effort when ability was still of instrumental value. Effort was linked with pride, guilt, and happiness, whereas failure ascribed to low ability was associated with feelings of shame.

A general causal model that includes a path from ability to effort in addition to other variables is illustrated in Figure 2.13.
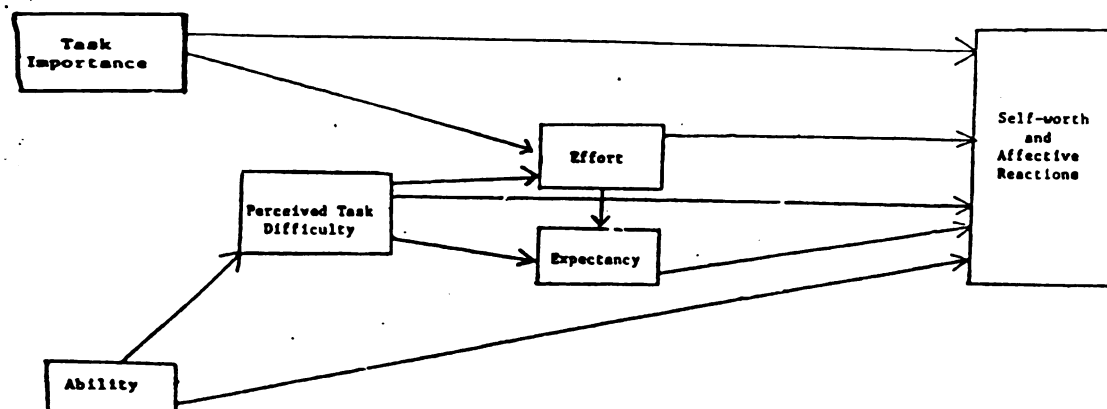
Figure 2.13: Hypothesized causal sequence. (From Jonathon Brown, _Effort Versus Ability: Preferences and Affective Reactions in Achievement Settings_, Bethesda, Md.: ERIC Document Reproduction Service, ED 237 9917, 1983, p. 10. Not to be duplicated without permission of the copyright holder.)

The starting point in the causal sequence is presumed to be a joint determination of task importance and ability level. Both the intrinsic and extrinsic value associated with success are included under task importance, and ability is taken to include elements of acquired skill and innate ability (aptitude). The relation between the two variables is left unspecified. In some instances, those tasks at which an individual is competent acquire importance; other times, the importance of doing well in the past has led an individual to become

proficient and highly skilled. The next step in the model is a
subjective evaluation of task difficulty. It is assumed that one's
perceptions of task difficulty are in part determined by one's ability
level. All other things being equal, tasks for which one possesses
high ability are subjectively less difficult than tasks for which one
possesses low ability. Task importance and perceived task difficulty,
then, combine to determine how hard one tries. The more highly valued
is success and the more difficulty the task, the harder one works to
achieve success. Ability has no direct effect on effort in the pro-
posed model. In the next phase, the figure shows task difficulty and
effort to determine expectancy of success. The subjective likelihood
of attaining a goal is hypothesized to depend on perceptions of how
difficult the task is and how hard one intends to try. These factors,
in turn, depend on the individual's ability. Finally, feelings of
self-worth and affective reactions are conceived as a response to the
entire constellation of antecedent factors.

Self-efficacy theory maintains that all processes of psycho-
logical change operate through the alteration of the individual's sense
of personal mastery or efficacy. Expectations of personal efficacy
determine what behaviors will be initiated, how much effort will be
expended in performance, and how long the individual will persist when
met with difficulty or failure. This theory maintains further that an
expectancy held by a person concerning a behavior and outcome can be
viewed as two independent expectancies: an outcome expectancy, the
belief that a given behavior will or will not lead to a given outcome;

and a _self-efficacy expectancy,_ the belief that the person is or is not
capable of performing the requisite behavior. According to Bandura (in
Maddus, Sherer, & Rogers, 1980), outcome expectancies will have little
effect on decisions about behavior if people do not believe themselves
capable of performing the behavior in question.

Maddus et al. (1980) attempted to investigate the relationship
between self-efficacy and outcome expectancies and to determine the
effects of these expectancies on intentions to perform a behavior.
Subjects were 95 students in introductory psychology classes who were
given extra credit for their participation. The students read
communications that differed in descriptions of the difficulty of
learning and performing a behavior (self-efficacy expectancy) and the
effectiveness of the behavior in producing a desired outcome (outcome
expectancy).

This experiment demonstrated that expectations of outcome and
. self-efficacy can be successfully manipulated by verbal persuasion and
that these expectancies can cause changes in behavioral intentions.
The three major findings of interest were: (1) increments in outcome
expectancy caused significant increases in intentions to perform the
behavior described; (2) increments in self-efficacy expectancy did not
product corresponding significant increases in intentions, though a
trend was found in the predicted direction; and (3) outcome expectancy
influenced perceptions of self-efficacy.

Outcome expectancy had a positive main effect on intentions to
perform the behavior described in the communications. When the

behavior was presented as highly likely to result in a favorable outcome, subjects reported greater intentions to perform the behavior than when no information was given about the likelihood of the outcome and when the behavior was presented as unlikely to lead to this outcome.

Expectations of self-efficacy failed to significantly influence intentions to perform the behavior, though a trend in the predicted direction was found. The data suggested that expectations of self-efficacy may not always exert as strong an influence as expectations of the behavior's outcome on one's intentions to perform the behavior. In light of the demonstrated relationship between intentions and the performance of behavior, an individual's expectations concerning a behavior's outcome may have, under some conditions, greater influence on performance of the behavior than expectations of self-efficacy.

The influence of self-efficacy is partially dependent on the risk perceived in attempting to perform a behavior but failing to perform the behavior correctly. The more difficult a behavior is to learn and perform, the greater the probability that the behavior will not be performed correctly. If no penalty results from attempting a behavior and then failing, the attempt involves little risk. If the perceived outcome of this same behavior is perceived as favorable, attempting the behavior may lead to possible benefits. The combination of low risk and possible gain makes an attempt more likely, even if the behavior is seen as difficult to perform. If attempting the behavior and failing is believed to lead to aversive consequences, a

difficult behavior may be less likely to be attempted, despite the possibility of gain from successful performance. If the risk of aversive consequences for failure is low and the probability of gain for success is low, perceptions of one's ability to perform the behavior may have less effect on one's decision to attempt the behavior. As the risk of aversive consequences becomes greater, confidence in one's ability to perform the behavior may have a more pronounced effect on the decision to attempt the behavior.

Outcome expectancy also influenced self-efficacy expectancy. Individuals who believed that the behavior was more likely to lead to a favorable outcome also tended to express greater confidence in their ability to perform successfully the behavior than individuals who perceived a weaker relationship between the behavior and its presumed outcome. The effect of outcome expectancy on self-efficacy may depend on the type of information provided about the difficulty of the behavior. If a behavior is presented as difficult to perform (low self-efficacy), people may adjust their beliefs in their abilities according to the perceived effectiveness of the behavior: The more likely the behavior is to produce the desirable outcome, the more confidence people will express in their ability to perform the behavior.

Abramson's learned-helplessness model (in Weisz & Stipek, 1982) distinguishes between two kinds of helplessness, both implicated in depression. In personal helplessness the individual perceives that some relevant persons in his situation would be able to avoid a

Control orientation	Responses to failure			
	cognitive/interpretive	task behavior	self-esteem	LH label
Contingent outcome, Competent self	my failures result from insufficient effort; the controlling response is in my repertoire	perseverance, increased performance intensity	minimal loss	mastery orientation [Diener and Dweck, 1978]
Contingent outcome, Incompetent self	my failures result from insufficient competence; there is a controlling response that relevant others can produce, but I cannot	deficits in perseverance, declining performance intensity	significant loss	personal helplessness [Abramson et al., 1978]
Noncontingent outcome, personal competence not indicted	my failures result from the inherent uncontrollability of the outcome; there is no controlling response that I or relevant others could produce	deficits in perseverance, declining performance intensity	no loss	universal helplessness [Abramson et al., 1978]

Figure 2.14: Relation of perceived contingency and competence to learned helplessness (LH) theory. (Cited in John R. Weisz and Deborah J. Stipek, "Competence, Contingency, and the Development of Perceived Control," Human Development 25 [1982]. Not to be duplicated without permission of the copyright holder.)

particular aversive outcome (e.g., failure, divorce, death of a loved one), but that he himself is unable to do so. This perception can lead to depression, deficits in response initiation and persistence, and loss of self-esteem. In universal helplessness the individual perceives that he is unable to avoid the aversive outcome and that all other relevant persons would also be unable to avoid it. We perceive a close relationship between the distinction advanced by Abramson and the distinction between perceived contingency and perceived competency. People who believe that their failures result from noncontingency (i.e., the inherent uncontrollability) of the outcome will suffer from universal helplessness. People who perceive their failures as resulting from their own incompetence vis-à-vis a contingent outcome will suffer from personal helplessness.

Remedial or developmental programs in the community college have generally been unsuccessful, resulting in high attrition rates among nontraditional, low-achieving students. A more appropriate system is individual, learner-oriented instruction. The learning process can be significantly improved if students' control orientations can be shifted toward the internal direction. Roueche and Mink (1975) participated in a study involving a sample of 1,200 students attending several community colleges. Data for the first two years of the project indicated that individualized instruction did produce a shift toward internal locus of control in students, if a period of at least one semester was involved.

Drummond, Smith, and Pinette (1975) also conducted a study to see if the internal-external control construct related to students' achievement in an individualized community college reading course. Thirty freshman students were identified as either internal or external oriented, based on their scores on the Internal-External Scale. Each student was assigned an individualized instructional program after an evaluation of his reading skills. At the conclusion of the instructional period, posttest results indicated that the external-oriented students had achieved more. There are several possible explanations for external-oriented students performing better than internal-oriented students in an individualized community college reading course. Internals have greater belief in their own ability and skill and feel they can control their own outcomes. Consequently, they may not be as conscientious about performing all the work that is assigned as externals are. It was hypothesized that college students, especially males, arrive at an external orientation as a defense against failure even though they are highly competitive and internal-oriented by nature. They may still maintain a striving behavior, but defensively, they rationalize their possible failure by expressing external attitudes. Externals are more likely to seek support and reinforcement from outside sources such as the instructor. Even though much of the material was self-instructional and the course was generally flexible in terms of choosing learning activities, the internal-oriented students still might have found that this particular reading course was too structured and confining to suit their nature. These students probably needed

wider latitude in selecting activities. This may be essential if they are to benefit fully from individualized instruction. A sensitivity to individual differences is an important aptitude for reading teachers to possess. Therefore, if the internal-external control of the student contributes significantly to the success or failure of his performance in an individualized reading course, decisions about instructional methods and teacher behavior should be made on the basis of this type of information as well as on the basis of scholastic information.

Nielsen and Long (1981) attempted to determine whether adolescents' locus of control scores were related to their reading achievement. The Children's Nowicki-Strickland Internal-External Scale was administered to 210 senior high school students. Independent samples and tests were used to determine whether significant differences in locus of control orientations existed between students who read well and those who read poorly. Sex differences were also analyzed. Poor readers had significantly higher external locus of control scores than good readers. Females were significantly more external in locus of control than males in the group of poor readers, but no significant differences existed between males and females in the high reading group. Although adolescents' locus of control attitudes were clearly not the only factors influencing their reading abilities, a relationship apparently existed that warranted teachers' consideration.

What role should one take when teaching a college reading-improvement course? The course could be highly instructor-controlled, where the person in charge plans, organizes, guides, and directs.

Conversely, a more student-controlled approach could be taken, where the students shoulder increased responsibility for planning and organization and the instructor becomes a resource person whom the students may consult. Researchers generally have hypothesized that greater achievement gains will occur when the instructional style and locus of control of the students are congruent. Internally oriented students should respond better to learning environments that allow them substantial decision-making authority, whereas externally oriented students would probably prefer a more structured, teacher-controlled situation.

The question of instructional approach and pupil characteristics interacting to affect achievement was explored. Allen and Harshbarger's (1977) study sought to expand on the Drummond experiment by devising a method of instruction offering students substantial control as to course content and requirements. The purpose of this study was to compare the performance of internally and externally oriented college reading-improvement students taught in a student-controlled or an instructor-controlled manner. The study sought to determine whether locus of control of the student and instructional approach interacted to enhance or impede academic progress. Four sections of the reading-improvement course required for high-risk freshmen were studied. Using the Rotter I-E Scale, students in both types of classes were classified as tending toward an internal or an external locus of reinforcement control. Of the two types of students in two different learning environments, the internals in the instructor-controlled classes seemed to

have suffered. The mean reading gain score for that group showed virtually no improvement from the pretest to the posttest. These students were subjected to a teaching method incongruent with a facet of their personalities. They expressed a belief in personal control over events in their lives yet were denied any control in determining course content or requirements. The internal locus of control orienta- tion did not appear, by itself, to be responsible for the lack of improvement. Internally oriented students in the student-controlled classes did show reading-achievement gains. It seemed to be the inter- action of this locus of control with the teaching method that impeded progress. The mismatch of locus of control with instructional approach did not have a detrimental effect. Externals in student-controlled classes showed improvement similar to those in instructor-controlled classes. It is possible that externals were less affected by a given instructional style because they were willing to accept, or unwilling to try to change, what fate had determined for them.

Pupils differ, and the search for a best method of instruction must be supplemented with ways of adapting instruction to the needs and abilities of the individual. It is this concern for adapting instruc- tional methods to meet the needs and abilities of the learner that has led to the abundant use of aptitude-treatment interaction (ATI) research. Horak and Horak's (1982) study used ATI techniques to inves- tigate how mathematics achievement may be affected by different instructional treatments and by learner cognitive style. In ATI research, the term "treatment" has been broadly defined to include

variations in structure, pacing, style, or modality of instruction. Inductive and deductive methods of instruction were used to teach a transformational geometry unit to two groups of college students. The criterion measure was composed of questions differentiated into lower and higher levels of understanding based on Bloom's taxonomy. The analysis revealed a significant interaction for the subtest of items testing lower-level understanding. On these items, the internal students achieved higher when taught with the inductive method, whereas the external students achieved higher when taught with the deductive method.

Locus of control is a cognitive variable that should affect achievement in varying learning situations. Students with an internal locus of control should respond more readily to student-controlled environmental stimuli and use experience with a task to improve performance. Alternately, students with an external locus of control should respond more readily to teacher-controlled environmental stimuli and use teacher suggestions to improve performance. Thus, it may be conjectured that inductive-deductive instructional treatments might differentially affect achievement of internal and external students.

Owie (1983) also conducted a study to assess the influence of students' locus of control on their achievement in biology following conventional and programmed instruction in the classroom. Externally and internally oriented students were taught by the same instructor using two different teaching methods. The findings posited a definite relationship among locus of control, instructional style, and

achievement. Students who were internally oriented appeared to attain higher levels of achievement under conditions in which intrinsic reinforcers constituted the stimuli. On the other hand, the externally oriented students were found to be more comfortable under conditions in which extrinsic reinforcements defined the foci of learning motivation.

The results of an aptitude-treatment interaction study by Daniels and Stevens (1976) supported the findings of the Owie study. This ATI study classified 68 subjects as external or internal. Approximately half of the externals (internals) were given a traditional, teacher-controlled method of instruction, with the remaining subjects being involved in a contract-for-grade plan. At the conclusion of an eight-week course in introductory psychology, all subjects were given a 75-item multiple-choice achievement posttest. Analysis of covariance was used to test the hypothesis of an interaction between I-E and method of instruction. A strong disordinal interaction was found, with internals performing better under the contract plan and externals performing better under the teacher-controlled method.

No single instructional process is optimal for all students. Therefore, one of the major goals of a psychology of instruction is to adapt instructional methods to individual differences of the subjects. Newsom and Foxworth (1980) conducted a study that focused on specific teaching strategies and their effect on shifting externalized students toward internality (change of locus of control), on completion rate, and on increase in knowledge of math over a three-month period. Eight adult education classes with 92 students from the North Texas area

participated in the project. These classes were assigned to three
groups: experimental classes using learning contracts, experimental
classes having teachers trained in locus of control concepts, and
classes conducted normally serving as a comparison group. Pre- and
post-assessments using the adult form of the Nowicki-Strickland
Internal-External Scale were administered. Additional demographic data
were collected with emphasis on completion status. The study supported
the proposition that contract learning may have an internalizing effect
on adults enrolled in adult education programs. Data indicated that
simply training teachers with the concepts of locus of control and with
implications for teaching had no effect on developing internality among
students.

Reading Concerns

National studies have indicated that remedial or developmental
programs in the community college have generally been unsuccessful,
resulting in inordinately high attrition rates among nontraditional,
low-achieving students. A more appropriate system may be individual,
learner-oriented instruction. The attempt is to shift the students'
orientation from external to internal. The keys to the success of
individualized instruction are: (1) systematic design of the total
learning environment, (2) provision for multiple levels of entry into
carefully ordered instructional sequences, (3) staff involvement
personally and professionally, and (4) openness to approaching
specific problems (grades, dropouts) on a generalized, fundamental
level (locus of control). A ten-year study is ongoing, which involves

a sample of 1,200 students attending several community colleges (Roueche & Mink, 1975). The basic research design examines the main effects of (1) instruction, either self-paced or traditional; and (2) counseling, either composite or traditional. Data for the first two years of the project indicated that individualized instruction did produce a shift toward internal locus of control in students if a period of at least one semester was involved.

It is important for self-directed learners to share in the diagnosis of their needs, to be aware of the goals of the learning experience, and to share in the planning of learning activities. Whether or not adults will be independent learners is at least partially determined by whether they have a field-dependent or field-independent cognitive style. Field-independent learners embody the philosophy of adults as self-directed learners. Persons who are field-dependent will need to be helped to develop strategies for structuring their learning. They will also need to learn decision-making processes. The adult learner, especially the disabled reader, can move toward becoming a self-directed learner only when certain obstacles are overcome. Some barriers to self-direction include no goals, fears and insecurities, lack of confidence in abilities, lack of prior motivation, and not understanding the why of what they are learning (Thistlethwaite, 1983).

At Pennsylvania State University a program has been developed to help students with learning disabilities become independent learners and successfully complete their college programs. Preliminary results

of this pilot program for college students with learning disabilities indicated that learning-disabled students could successfully complete college programs when individualized intervention was provided. Twelve students were referred and participated in the program over a two-year period. Discrepancies in achievement and ability were documented, and informal criterion-referenced tests were administered to identify specific skill deficits. Graduate-student teams worked with each student to design behaviorally based, individualized intervention programs. These programs focused on remediating or compensating for specific skill deficits and were designed to encourage maximum student independence. All students successfully completed their degree programs or maintained at least passing grades in all courses (Gajar, Murphy, & Hunt, 1982).

Southeastern Louisiana University employs an open-door policy of admissions, and the number of students without the basic skills required to be successful in regular university work has increased dramatically. The purpose of the developmental education program at Southeastern Louisiana University is to provide a program to meet the needs of students who enter the university with inadequate school preparation. One major problem facing the entering college student is a lack of basic reading skills, which hampers the student's ability to follow classroom presentations, read required materials, organize and summarize content information, and interpret examination instructions and questions. Student deficiencies in the area of reading include low word recognition, poor meaning vocabulary, inadequate reading

comprehension, and slow rate of reading. The other pressing problem is the students' lack of confidence in a competitive classroom setting caused by low academic skills and low self-concept. One thousand out of the 2,000 first-semester freshmen were placed into developmental reading as a result of substandard ACT scores.

Ferguson and Bitner (1984) performed a study to determine self-concept levels, attitudes toward reading, and basic learning styles of developmental-reading students as compared to regular entering freshmen. The most interesting result of their study was that 64 percent of the developmental-reading students blamed themselves for their poor reading ability, whereas a total of 36 percent blamed their teachers; none blamed their parents. The developmental-reading students preferred memorizing things by repeating them out loud as opposed to writing them out. They also preferred to look at charts and diagrams before reading the written text. Comparing the developmental students' attitudes toward reading to those of regular freshmen revealed a major difference. Regular freshmen seemed to be willing to read under various circumstances, and they chose and enjoyed reading. The inverse was indicated by the developmental-reading group. They did not choose to read, nor did they enjoy reading. The developmental students intellectually realized that reading should be valued as important, but when it came to responding to the process, they avoided reading.

Santa and Truscott (1979) proposed that a college reading program be designed and organized so that it integrated reading, writing, speaking, and thinking within the content areas. Douglass

College, the woman's college within the Rutgers University system, has a fairly selective admissions policy. To represent more fairly the diverse population of urban New Jersey, the university instituted a special admissions program to attract women from various cultural and ethnic backgrounds. Even though these students generally had lower SAT scores than regularly admitted freshmen, most had the potential to succeed. A reading and study-skills course was designed at Douglass College beginning in fall 1977 to assist students experiencing severe academic difficulty. Santa and Truscott coordinated the reading course with their students' biology, sociology, and writing courses and within these content areas taught study skills, vocabulary, improvement reading, comprehension, and critical thinking. An evaluation indicated that the reading-skills students achieved higher grades and standardized test scores than a control group.

The developmental students also received individual help through a tutorial program involving juniors and seniors receiving secondary teacher certification. The education students participating in the program registered for a three-credit Independent Study in Education the semester before student teaching. The tutorial program proved extremely worthwhile for both student tutors and their developmental students. The student tutors had assigned readings on teaching secondary and college reading and met with the instructor for weekly seminars. In addition, they taught small groups of developmental students taking introductory courses in their majors. Besides helping the developmental students grasp essential course concepts, the tutors

used their knowledge gained about reading in the weekly seminars to help their students become more proficient in both reading and studying course material.

In 1974 Howard University's board of trustees established the Center for Academic Reinforcement (CAR). The Center was especially designed for entering freshmen in all Howard's undergraduate schools and colleges who have unrealized potential in verbal, mathematical, and learning/study skills. Since its establishment, CAR has been successfully bridging the gap between high school and college for the under-prepared student. During the 1976-77 school year, the CAR was awarded a Spencer Foundation grant through the School of Education at Howard University.

A research study by Hawkins and Bartlett (1978) was conducted to determine the most productive type of learning/study-skills course(s) for certain science majors. The purpose of the Spencer Foundation study was to produce empirical data that would help answer the following research questions:

1. Will a tailor-made learning to learn course, "How to Study in the Sciences," be more effective in reducing the attrition rate and in raising academic performance of marginal students attending Howard University's allied health science schools than the general survey study-skills course offered to marginal students?

2. Will there be a significant difference in fall 1976 and spring 1977 grade point averages of science students voluntarily

enrolled in a "Studying the Sciences" minicourse offered in the spring 1977 semester?

More than 50 college students participated in an investigation of the extent to which content-area study-skills programs influenced the attrition rates and grade point averages of health science students whose performance was marginal. Two experimental study-skills programs were developed. In the first, 11 students were placed in a "how to study the sciences" course that lasted for one semester. While the attrition rate for this group was lower than that for a matched control group in a general survey study-skills course, there was no significant difference in the grade points averages of the two groups. In the second program, 23 students were placed in a "studying the sciences" five-week minicourse. After the course, the grade point averages of these students were slightly, but not significantly, higher than their averages before the course. Overall results indicated that marginal students required more than a one-semester or half-semester study-skills course.

The records of 53 students in an introductory biology class at Fulton-Montgomery Community College were also examined to determine the effect of selected variables on success in the course. The independent variables tested were age, sex, vocabulary, and comprehensive grade placement levels (GPL) on the Nelson-Denny Reading Test, and whether or not the student had taken biology in high school. The final grade in the course served as the dependent variable. Multiple regression analysis was used to establish predictor equations for the success of

various subgroups. Results indicated: (1) scores on the Nelson-Denny Reading Test showed significant positive correlations with final grade in introductory biology; (2) age interacted with reading scores to increase the prediction of success; (3) both high school grade point average and rank in graduating class were shown to be statistically significant in predicting academic success; (4) for females who had not taken high school biology, the final grade in the college introductory course was strongly dependent on the comprehension GPL; and (5) for males without high school biology, the final grade depended on vocabulary GPA rather than comprehension GPL (Emmeluth, 1979).

Community colleges, by their very nature as open-door institutions, attract students with skill levels below those of four-year schools. The different cultural background and value for education and the problems of returning students create an abyss between the traditional expectations of higher education and the newer realities of unprepared students. We are not dealing with traditional students but ones who come from an environment where learning is at a distinct disadvantage. They are not ready to read or write or compete at anywhere near a college level. We cannot hope to teach them subject matter on the college level unless we are prepared to treat their differences. Placing them directly into college-level classes leads only to dilution of course materials or to a frustrating phenomenon of attrition (Epstein, 1978).

A Guided Studies Program was instituted on an experimental basis at Clackamas Community College in Oregon to deal with this

problem. The aim of the program was to increase literacy, which was viewed as a means to help students' self-improvement by increasing their ability to express desires and opinions coherently and to convey feelings about themselves positively. Every student is pretested upon entrance to the college to determine the eligibility for admittance into regular courses. Those students not achieving a minimum score on the ACT or the Scholastic Aptitude Test, approximately 20 to 25 percent of all students, are strongly directed and counseled into the Guided Studies Program. The program consists of three components: a testing phase; counseling, to advise students into a program tailored to meet their individual needs; and a humanities experience, which introduces the student to the world of the arts. As a result of this program, the attrition rate for the lower quartile of the student population was reduced by 75 percent, and students' sense of individual responsibility increased (Epstein, 1978).

Continuing efforts have also been made at Amarillo College to assess the characteristics, attitudes, motivations, and goals of the high-risk students in the developmental studies program, which was designed to build self-concept and improve reading, English, math, and study skills. Over the three years of the study, students have tended to be older than regular students, more frequently male, Anglo-American, single, nonmilitary, and employed. The majority have had high school diplomas or equivalencies, and 55 percent aspired to associate degrees or higher. Although over 80 percent since 1974 intended to continue their education, their confidence about completing

their education fell from 42 percent "very sure" in 1974 to 16 percent in 1976. The majority have aimed at professional to semi-professional jobs. A sample of 79 high-risk students was traced from enrollment in fall 1975 to spring 1977. Only 27 remained enrolled, carrying an average of 12.6 hours per semester with a mean grade point average of 2.69. The total hours earned averaged 49.4. The performance of students in English classes was also studied.

Future quasi-experimental and experimental research is now called for to answer the question: How has one or more developmental studies courses affected the success of high-risk students? Success is defined in terms of course hours completed, grade point averages, continued enrollment, decisions regarding educational and career goals, ultimate attainment of these goals, and student assessments of personal success (Henard & Byrd, 1977).

Perez (1973) performed a study to describe a developmental reading program at a midwestern university. After using ACT composite scores to identify students with minimally developed reading abilities, students were placed in a required developmental reading course that met two 50-minute class periods a week for a semester. The major objectives of the course were to improve vocabulary, reading comprehension, and reading rate. At the conclusion of the semester, the program evaluation revealed that all three course objectives were attained: (1) a student opinion survey revealed that 93 percent of the students indicated their vocabulary improved, 91 percent indicated their reading comprehension improved, and 83 percent indicated their reading rate

increased; and (2) a comparison of pre- and posttest scores on the Nelson-Denny Reading Test revealed gains on all three subtests of vocabulary, comprehension, and rate. The positive results of the evaluation suggested that the program allowed underprepared and/or nontraditional students to improve their reading skills and to be better prepared to succeed in regular academic courses. Thus, the program could be a model for other institutions that desire to meet the needs of students who are in most need of help in reading.

Bucks County Community College's Department of Basic Studies is a comprehensive developmental education program that involves work for credit in basic academic skills—reading and study skills, writing, and mathematics. In addition, special counseling is given to students to change negative habits and attitudes and to develop a more positive self-image. During the 1973-74 academic year, a study was conducted to determine the effect of the Basic Studies Program. Students included in the study ranked in the bottom 40 percent of their high school graduating class and scored at the 25th percentile or below on the Comparative Guidance and Placement Test. This study contrasted 86 students participating in the Basic Studies Program (experimental group) with 97 nonparticipants (control group). The average GPA earned by the experimental group was 2.285, whereas the control group earned an average GPA of 1.77, a difference that was statistically significant. While 75 (87 percent) of the experimental group participants returned to Bucks for the fall 1974 semester, only 59 (61 percent) of the control group returned. The experimental group also proved to be more

successful in English Composition I and mathematics than the control group. They more frequently earned grades of "C" or better and showed more persistence (Rosella, 1975).

Two different analyses were also employed to assess the effects of a required study-skills program on the success and achievement of students in mechanics programs at Keewatin Community College in Manitoba, Canada. The results of the analyses of variance might lead to an erroneous conclusion that the study-skills instruction was effective in aiding the progress of Motor Vehicle Mechanics students but not of Heavy Duty Mechanics students. Analyzed separately, significant effects were not observable for the Heavy Duty Mechanics students on any of the measures of success. Clear effects, however, were observed as a result of the study-skills program on Motor Vehicle Mechanics students as measured by dropout rate, dropout frequency, and second-term grade point average. Factors such as scope and length of study-skills instruction plus attitude and commitment of the students could all have been salient in affecting progress of students in both programs. It seems possible that the Motor Vehicle students may have been the less-motivated group and that the study-skills support system and maintenance classes throughout the year may therefore have had a significant effect on them. The Heavy Duty Mechanics students may have been highly motivated to begin with, and the three weeks of study-skills instruction did not yield as dramatic an effect. It is also possible that the reading and study-skills program was more effective for the Motor Vehicle students because their texts may have had a high

readability level, and therefore the students' need for these skills might have been more immediate. The Heavy Duty students might not have been confronted with texts that had exceptionally high readability levels. In any case, it would seem apparent that motivational, attitudinal, or other factors could have mediated the effect of the study-skills program on either group. Whether the effect of the instruction was mediated or not, it is apparent that a required instructional program in reading and study skills could significantly affect performance of all students considered together, and particularly of Motor Vehicle Mechanics students considered in isolation (Stalker, 1982).

Developmental reading programs have a long history in higher education. There is a need to take a more far-reaching look at the studies completed on higher education reading programs to answer the question, What should be the role of the college reading program in student-retention efforts? If college reading professionals are going to deal with problems of attrition and generate strategies for retention, Heerman (1983) suggested the following four recommendations should be considered:

1. Greater attention must be paid to program evaluation.

2. Differential treatment models must be identified that address sequence of treatment within a semester and across several semesters.

3. Reading research must be reconceptualized along the lines of retention research if reading instruction is to have an appreciable influence on student retention.

4. Finally, should we press ahead into retention research, we must be prepared to accept some fairly modest results given the limitations of retention efforts in general.

Summary

A review of the selected literature indicated that the factors of goal setting, self-esteem, locus of control, and developmental reading programs have a significant effect on academic achievement in college. Goal commitment depends on an individual's integration into the college system, his involvement with career development stages, and his display of behavior associated with transitions. Self-realization is a lifelong struggle that requires an individual to accept his limitations and to preserve his self-definition established over time. Education models by Wicklund and Gollwitzer, Covington and Beery, and Bloom suggested that self-confidence and competence are enhanced when a student is allowed the responsibility for setting his own performance standards, levels of aspiration, and the pace at which he will learn. The difference between success and failure is primarily dependent on how a person perceives his interaction and progress with a meaningful environment. The concepts of external versus internal locus of control, reality therapy, attribution theory, expectancy theory, and the learned-helplessness theory are all references for describing how people perceive and determine their behavior for the striving of personal goals. It is important for self-directed learners to share in the diagnosis of their needs, to be aware of the goals of the learning experience, and to share in the planning of learning activities. Steps

have been taken to implement remedial programs with learner-oriented instruction to improve basic skills and to help reduce attrition rates in college. Greater attention must be given to reading research on college students if our primary goals are to improve basic skills and create significant influence on student retention.

CHAPTER III

DESIGN AND PROCEDURES

Introduction

The primary purpose of this study was to determine the

relationship of goal setting, self-concept, locus of control, and

reading ability with respect to academic achievement of community

college students enrolled in techniques of study classes. Descriptive

statistics were used to record the results of the research and to

analyze the collection of data. The following hypotheses were tested

to ascertain whether significance existed between these four variables

and academic achievement in college.

Ho 1: There is no significant relationship between academic achievement and locus of control.

Ho 2: There is no significant relationship between academic achievement and self-concept.

Ho 3: There is no significant relationship between reading ability and academic achievement.

Ho 4: There is no significant difference between students who were enrolled for three terms and students who were enrolled for two terms or less with respect to the I-E Rotter Scale, the Tennessee Self-Concept Scale, the Nelson-Denny Reading Test, and GPA.

Ho 5: There is no significant relationship between the primary goals of the students attending LCC and the strategy they have selected to accomplish them.

Ho 6: There is no significant relationship between self-commitment and the primary goals of the student.

Ho 7:   There is no significant relationship between self-commitment
and the strategy the students have selected to accomplish
their goal.

The Setting

The Lansing Community College Student Profile (1984) for fall

term 1984 describes and analyzes personal, socioeconomic, occupational,

and educational characteristics. It was reported that a majority of

LCC students are women, and two out of three students are single.

Nearly three-fourths of the students were enrolled part time. The

average credit-hour load of part-time students was 5 credits versus

13.5 credits for the full-time students. Almost as many students

attended classes during the evening hours as attended during the day.

Forty-five percent of the students were employed full time. Of the 27

percent who were not employed, 12 percent were not seeking employment

because of other responsibilities and 15 percent were not employed and

seeking employment. During the fall, 45.3 percent of the students were

between the ages of 21 and 30. Less than 18 percent of the students

were 18 and 19 years old. 'The average age was 27.6 years, the median

age was 25, and the mode was 19. Almost 10 percent (9.5 percent) of

the students were minorities. Fifty-six percent of the students were

attending LCC for occupational reasons, and 26 percent intended to

transfer. To accomplish their goal, 65 percent planned to earn an

associate degree and 36 percent would take individual courses. The

student profile data also showed that 21 percent of all the students

who attended LCC fall term held formal degrees. The All College

Student Profile for fall term 1984 prepared by Lansing Community

College can be used as a frame of reference for comparison with the population of this study. However, some of the demographic data gathered from the Personal Inventory are reported by the researcher in the Appendix instead of here in Chapter III.

Population

The population selected for this study included students participating in all techniques of study classes at Lansing Community College during fall term 1984. Nine sections were taught in a traditional classroom setting on campus, and all four teachers were represented. Four morning classes, three afternoon, and two in the evening were offered to accommodate the students in the community. One section of self-paced instruction was available in the lab, but the ratio of enrollment was not sufficient to be compared with students participating in traditional classroom settings. There were 30 students enrolled in the self-paced lab, but the teacher responsible for monitoring these students was only able to interact with eight students on a consistent basis to make the completion of all four inventories possible. Since the teacher worked part time and was also responsible for teaching two techniques of study classes, her schedule did not always coincide with the schedules of the students participating in the self-paced course. Flexibility did not exist to communicate with all 30 students on a frequent basis.

There were 116 students at the beginning of the study, but only 98 students completed all four inventories. Out of the 18 students not

included in the study, 11 had dropped the course and 7 had only completed three out of the four inventories. All seven had not taken the Nelson-Denny Reading Test, which was administered during the seventh week of the term. Fifty-four females and 44 males represented the population analyzed in this study. Seventy-seven of them were single and 21 were married. The youngest student in the study was 18 and the oldest was 54. The ethnic background distribution was 1 American Indian, 2 Asian, 14 Black/non-Hispanic, 7 Hispanic and Chicano, and 74 white/non-Hispanic. Only three international students and eight handicapped students were represented in this study.

Instrumentation

Specific instruments were used to gather data pertaining to goal setting, self-concept, locus of control, reading ability, and reasons for discontinuing education or temporary withdrawal from college. Two questionnaires were designed by the researcher, the Personal Inventory and a protocol questionnaire for interviewing students who attended Lansing Community College for only one term. The I-E Rotter Scale, the Tennessee Self-Concept Scale, and the Nelson-Denny Reading Test were used to gather the other data that were analyzed.

Personal Inventory

The Personal Inventory was designed as a descriptive questionnaire by the researcher. Thirty-four questions were formulated to provide demographic data and information on goal orientation for each

student. The first draft of the questionnaire was reviewed by Barbara Thompson, the program director of the Center for Student Support at Lansing Community College, and was completed by a prospective student to analyze the approximate amount of time needed to finish the inventory. Questions were added, deleted, or rephrased to enhance the final version of the questionnaire. Some of the questions reflect the registration form of Lansing Community College and a dissertation questionnaire developed by Yates (1982). An appropriate letter of explanation and a permission form were also developed to accompany the descriptive questionnaire to be given on the first day of class.

The revised instrument was reviewed by the Michigan State University Committee on Research Involving Human Subjects and the writer's dissertation committee. It was decided that the questionnaire was acceptable but provided more information than was required for conducting this particular study.

Student Questionnaire

The Student Questionnaire was originally designed to be sent to students who only attended Lansing Community College for one term. Nineteen possible factors related to temporary withdrawal or discontinuing one's education were listed. Each factor was given a rating of one to five, ranging from not responsible to responsible. The students were supposed to decide which factors were responsible or not responsible for their discontinuing their education or temporary withdrawal from LCC. The directions were to circle only one response for each factor.

The instrument was reviewed by members of the dissertation committee and staff at Lansing Community College. While the study was in progress, members of the dissertation committee suggested telephone interviews as another alternative for contacting the students who only attended LCC for one term. The researcher decided to contact each of these individuals by phone and used the questionnaire as a protocol for the interview. The questionnaire was also mailed with a self-addressed envelope to two students who could not be reached by phone.

The I-E Rotter Scale

Rotter (in Robinson & Shaver, 1972) has been acknowledged for the development of a social learning theory and extensive research on the concepts of internal versus external locus of control in academic situations. The developmental history of the Internal-External Control (IE) Scale was documented in Rotter's (1966) monograph. Following several revisions based on item analyses, social-desirability controls, and studies of discriminant validity, a 29-item, forced-choice questionnaire was produced. Six of these items are fillers and the other 23 offer choices between internal and external belief statements. The total score is computed by summing the number of external beliefs endorsed. The I-E Scale is self-administered and can be completed in about 15 minutes. The correlations presented with the items are based on 200 male and 200 female Ohio State University elementary psychology students. The scale has been administered to other groups as described in the 1966 monograph.

For the student group just mentioned, an internal consistency analysis (Kuder-Richardson) yielded r = .70 for males, and the same for females. For two subgroups of this population, test-retest reliability coefficients were computed. After one month: males, r = .60 (N = 30); females, r = .83 (N = 30); combined, r = .72 (N = 60). After two months: males, r = .49 (N = 63); females, r = .61 (N = 54); combined, r = .55 (N = 117). Rotter suggested that part of the decrease after the two-month period was due to differences in administration (group versus individual). Correlations with the Marlow-Crown Social Desirability Scale (1964) ranged from -.07 to -.35. Several factor analyses reported by Rotter supported the assumption of unidimensionality of the I-E Scale, and numerous laboratory and survey studies have given evidence of its construct validity.

A comparison of the scores was also reported by Rotter (1966) between the males and females of the entire population of the Ohio State elementary psychology students in the 1966 monograph. The results were recorded as follows:

Males--575	Females--605
Mean--8.15	Mean--8.42
S.D.--3.88	S.D.--4.06

The Tennessee Self-Concept Scale

The Tennessee Self-Concept Scale was developed by William Fitts in 1965 to provide a multidimensional description of how an individual perceives himself. It can be used for a variety of purposes such as counseling, clinical assessment and diagnosis, research in behavioral science, and personnel selection. The scale consists of 100

self-descriptive statements that the subject used to portray his own picture of himself. The five basic categories explored in relation to identity, self-satisfaction, and behavior are physical self, moral-ethical self, personal self, family self, and social self. The scale is self-administering for either individuals or groups or can be used with subjects age 12 or higher and having at least a sixth-grade reading level. It is available in two forms, a Counseling Form and a Clinical and Research Form. Both use the same test booklet and test items. The differences between the forms center on the scoring and profiling system. The Counseling Form is quicker and easier to score since it deals with fewer variables and scores, is appropriate for self-interpretation and feedback to counselees, and requires less sophistication in psychometrics and psychopathology by the examiner. The Clinical and Research Form is more complex in terms of scoring analysis and interpretation and is not appropriate for self-interpretation by or direct feedback to the subject. Scoring for both forms can be accomplished either by hand or by machine through the test publisher. Approximately 20 minutes is needed to complete the scale, and the same is true for correcting it by hand.

The standardization group from which the norms were developed was a broad sample of 626 people. The sample included people from various parts of the country, and age ranges from 12 to 68. There were approximately equal numbers of both sexes, both black and white subjects, representatives of all social, economic, and intellectual levels, and educational levels from sixth grade through the Ph.D.

degree. Subjects were obtained from high school and college classes,
employers at institutions, and various other sources. Table I in the
manual reports the test-retest reliability coefficients of all major
scores for both forms of the Tennessee Self-Concept Scale. The Total
Positive Score was the only one used for reporting the results of this
study. The information from Table I regarding the Total Positive Score
is as follows: Mean = 345.57, S.D. = 30.70, Reliability = .92.   Vali-
dation procedures are of four kinds: (1) content validity, (2) dis-
crimination between groups, (3) correlation with other personality
measures, and (4) personality changes under particular conditions. An
extensive description is provided in the test manual.

The Nelson-Denny Reading Test

The Nelson-Denny Reading Test is available in Forms A, B, C,
and D (Brown, 1976). Form C was used for this study because it has
been traditionally administered in the Reading Laboratory at Lansing
Community College. There were also enough forms in stock to accommo-
date all participants in the study. The test provides a measure of the
three major elements of reading ability: vocabulary, comprehension,
and reading rate. Each form contains 100 items to measure vocabulary
and 36 to measure reading comprehension. The comprehension score is
given double weight in arriving at a total score. This total score is
the best single index of reading ability obtained through the use of
this instrument. Forms C and D were designed for use in grades 9
through 16. They are readily administered in a single class period.

The normal working time is 30 minutes, plus whatever time is needed to distribute and collect the test materials and to give directions. Self-marking answer sheets with a carbon marking device were used to eliminate the need for a separate scoring key.

Forms C and D of the Nelson-Denny Reading Test were standardized in October and November 1972. The standardization sample requirements were based on current information on the national student population. Specifications were drawn up to reflect geographical representation, socioeconomic levels, and community size. The main sample included 15,668 students. These students represented 65 high schools and 22 states. The results of the test-retest sample were presented in Table 20 of the manual in terms of means, standard deviations, reliability coefficients, and standard errors of measurement. The results for Grade 12 were recorded as follows:

	Mean	S.D.	Reliability Coefficient	Standard Error of Measurement
Vocabulary	29.63	16.28	.97	2.81
Comprehension	37.81	12.64	.85	4.90
Total (V + 2C)	67.44	27.13	.96	5.43
Reading Rate	290.91	112.09	...	...

The college population is not as stratified as the high school population. Individual colleges draw from very diverse regions, socioeconomic levels, and community sizes. Today the major difference between colleges is the distinction of four-year versus two-year colleges. The specifications for the college sample were drawn to reflect this characteristic as the most pertinent element. Cooperation was elicited from a very small portion of the desired sample. Therefore,

the results are not presented as a representative sample of the
national college population. The group tested represented 11 four-year
colleges and six two-year colleges. The sample analysis and the con-
version tables are presented only as factual reports of the results.

> Evidence of validity may be judged statistically by referring to
> the reliability coefficients, difficulty and discrimination
> indexes, and correlations with other measures such as course grades
> and scores on other tests. (Brown, 1976, p. 27)

These statistics are found in Part 5 of the test manual for
Form C. Raw score means and standard deviations are presented for the
Vocabulary, Comprehension, and Total scores for Form A and the Total
score of Form B.

Form	Score	Mean	S.D.
A	Vocabulary	34.47	9.65
A	Comprehension	38.62	9.47
A	Total	76.41	17.48
B	Total	86.29	20.67

In the February 1983 issue of the _Journal of Reading_, Webb
provided an evaluation of three standardized reading tests. He
reported the reliability of the Nelson-Denny Reading Test to be .88 but
also stated that true national norms for both the junior-college and
four-year college populations do not exist. This supports the data
described in the test manual for Form C.

Although the split-halves reliability coefficient is probably
the most commonly used statistic for the determination of test relia-
bility, it is more suitable for power tests than for the Nelson-Denny,
where speed plays an important role. The split-halves approach tends

to err on the high side, resulting in a substantial overestimate of reliability. On the other hand, in tests with a smaller number of items, such as the Comprehension test, some believe that the split-halves approach tends to underestimate reliability. The split-halves reliability coefficients were obtained by computing Pearson product-moment correlations and corrected with the Spearman-Brown formula.

To aid in interpreting the results, three types of derived scores are presented in the norms tables. They are the percentile ranks, grade equivalents, and standard scores.

Procedures

Members of the staff working in the Student Development Services Department were contacted for advice and support during the planning of this study. The department chair, the dean, and the college president of LCC also offered their support and suggestions for improving the research. Shortly after the doctoral committee and Human Subjects committee at Michigan State University approved the proposal, permission was granted by Dr. Gannon to conduct the study at Lansing Community College.

The Personal Inventory, the I-E Rotter Scale, the Tennessee Self-Concept Scale, and the Nelson-Denny Reading Test were administered to Lansing Community College students participating in techniques of study classes during fall term 1984. The four instruments were completed at the beginning of each class, and all make-ups were handled in the reading or study-skills lab. The Nelson-Denny Reading Test was administered and scored by experienced representatives from the reading

lab staff. The researcher was responsible for directing the distribution and scoring of the other three instruments. Assistance in correcting and recording the profiles of students who took the Tennessee Self-Concept Scale was given by the Testing Technicians Department at Lansing Community College, due to the time involved for processing each scale by hand. Results of the I-E Rotter Scale, the Tennessee Self-Concept Scale, and the Nelson-Denny Reading Test were shared with all students during their last day of class. Whenever possible, personal contact was made with the teachers to keep them informed and on schedule. The Personal Inventory was given the second week of class, the I-E Rotter Scale the third week of class, the Tennessee Self-Concept Scale the fourth week of class, and the Nelson-Denny Reading Test the seventh week of class. The curriculum for the techniques of study classes involves the review of reading skills, but this is not usually covered by the majority of teachers until the end of the term. Therefore, a compromise was made due to flexibility of the staff. All had been observed in their classes, before summer vacation, to confirm similar teaching styles.

The 98 students in this study who completed all four inventories were monitored for three consecutive terms. The students were classified into two groups. For this study, persisters was an operational term defined as the students who were enrolled for three consecutive terms. The nonpersisters was an operational term defined as the students who were enrolled for two terms or less. GPA for fall term was also recorded to serve as a representation of academic

achievement. GPA for fall term and enrollment checks for winter and spring terms were recorded by a secretary in the department. A questionnaire was designed by the researcher to interview the students who only attended LCC for one term. The purpose of the questionnaire was to find out if there were reasons for discontinuing education or temporary withdrawal from college other than the variables studied in the research. Eighteen out of 20 students were personally contacted by telephone. The two students who could not be reached by phone were sent a copy of the questionnaire with a self-addressed stamped envelope enclosed.

Testing the Hypotheses

To carry out the analysis, descriptive statistics were used to describe the variables involved in the study. The $p = .05$ level of significance was used for each test.

The first three hypotheses were tested by using the Pearson product-moment correlation coefficient. To test the fourth hypothesis, a multivariate analysis of variance (MANOVA) procedure was applied to test the difference between students who were enrolled for three terms and students who were enrolled for two terms or less with respect to all the dependent variables, i.e., I-E Rotter Scale, the Tennessee Self-Concept Scale, the Nelson-Denny Reading Test, and GPA.

A univariate analysis of variance (ANOVA) was applied for each of the dependent variables, i.e., the I-E Rotter Scale, the Tennessee Self-Concept Scale, the Nelson-Denny Reading Test, and GPA to test the

significant difference between the students who were enrolled for three terms and students who were enrolled for two terms or less.

To test Hypotheses 5, 6, and 7 a chi-square test was used to test the significance of the relationship between the variables involved in each of the three hypotheses.

Summary

This chapter provided a description of the population, instrumentation, survey procedures, and research methods used in planning and conducting this study. Particular attention was given to describing the historical background of each instrument. Procedures for developing support from both the staff and students were briefly described. A time frame for administration of the inventories was provided, with a presentation of how the data were collected and rated. The testable hypotheses and statistical procedures used for analysis were reviewed and discussed.

CHAPTER IV

ANALYSIS OF THE DATA

Introduction

The main purpose of this study was to investigate the relation-
ships of underlying motivations on learning and persistence toward
academic achievement in a community college with students enrolled in
study-skills classes. This was done by comparing the relationship of
academic achievement to locus of control, self-concept, reading abil-
ity, and student-established goals. The study compared students who
attended college for three consecutive terms versus those students who
attended for two terms or less with respect to these variables. The
analysis of the data restates each of the original hypotheses of the
study and provides appropriate tables and explanations for each. A
statement of whether the hypothesis was accepted or rejected has also
been included. Following the discussion of the hypotheses, a descrip-
tion of the students' primary reasons for discontinuing their education
after fall term is reported. The chapter concludes with a summary of
the findings.

Hypothesis 1

Ho 1: There is no significant relationship between academic
       achievement and locus of control.

The I-E Rotter Scale was given to 98 students. The mean was 9.163 and the variance was equal to 13.396 with a standard deviation of 3.660, which shows a wide spread of scores from 1 to 19.

A Pearson correlation test was performed to find out if there was a significant relationship between academic achievement and internal or external locus of control. The alpha level used for this test was .05. The outcome of the test is represented by the following figures:

$$r = -.1240$$
$$\# \text{ of cases} = 98$$
$$p = .112$$

Even though the relationship between academic achievement and locus of control was equal to -.1240, it can be seen that it was not statistically significant at alpha level .05. That will support the null hypothesis. However, the negative sign shows there was a slight inverse relationship between the two variables. For example, the higher the external score for the person, the lower the GPA.

The results of this comparison demonstrated that the lowest score received was 1 and the highest score received was 19. The difference between the highest and lowest scores for this variable gave the study a range of 18. Students receiving a score greater than 9 were classified as external, and those receiving a score less than 9 were classified as internal. Therefore, 40 students were identified as internal, 46 were identified as external, and 12 who scored 9 were excluded.

Hypothesis 2

Ho 2: There is no significant relationship between academic achievement and self-concept.

The Tennessee Self-Concept Scale was given to 98 students. The mean was 341.031 and the variance was 1173.288, with a standard deviation of 34.253. This indicates a wide distribution of scores from 259 to 397.

A Pearson correlation test was performed to find out if there was a significant relationship between academic achievement and self-concept. The alpha level used for this test was .05. The outcome of this test is represented by the following figures:

$$r = .1143$$
$$\# \text{ of cases} = 98$$
$$p = .131$$

Even though the relationship between academic achievement and self-concept was equal to .1143, it can be seen that it was not statistically significant at alpha level .05. That will support the null hypothesis.

The lowest score received was 259 and the highest score received was 397. The higher the score, the more positive an individual's self-concept tends to be. Variability refers to the extent to which the scores differ from each other. One measure of variability is the range, which is computed by simply taking the largest score minus the smallest score in the distribution.

Hypothesis 3

Ho 3:   There is no significant relationship between reading ability and academic achievement.

The Nelson-Denny Reading Test was administered to the 98 students. The results of the test provided grade equivalent scores for vocabulary, reading comprehension, total reading, and reading rate. The total reading score is a composite score of vocabulary and reading comprehension averaged together. The reporting of study results will be given in terms of the total reading score earned by each individual. The mean was 11th grade 2 months (11.2) and the variance was 79.0614 with a standard deviation of 2.8118, which shows a wide distribution of scores.

A Pearson correlation test was performed to find out if there was a significant relationship between reading and academic achievement. The alpha level used for this test was .05. The results are as follows:

$$r = .2924$$
$$\# \text{ of cases} = 98$$
$$p = .002$$

It can be seen from these figures that there was a statistically significant relationship between reading and academic achievement. Although the relationship between reading and academic achievement was equal to .2924, one would have expected it to be much higher since reading is a cognitive skill. It should also be observed that the highest score received (15.0) was also equal to the mode. The results make it possible to reject the null hypothesis.

The lowest score earned was 6.0 (6th grade, 0 months), whereas the highest score earned was 15.0 (3rd year in college), leaving a range of 9.0 (9th grade). The higher score, the better the reading ability for that student.

Hypothesis 4

Ho 4: There is no significant difference between students who were enrolled for three terms and students who were enrolled for two terms or less with respect to the I-E Rotter Scale, the Tennessee Self-Concept Scale, the Nelson-Denny Reading Test, and GPA.

A multivariate analysis of variance (MANOVA) procedure was applied to test the difference between the students who were enrolled for three terms and students who were enrolled for two terms or less with respect to all the dependent variables, i.e., I-E Rotter Scale, the Tennessee Self-Concept Scale, the Nelson-Denny Reading Test, and GPA. The results of this test are reported in Table 4.1.

Table 4.1.--Multivariate test of significance.

Test Name	Exact F	df	Sig. of F
Wilks	2.64905	4,93	.03812

According to Table 4.1, there was a statistically significant difference at the alpha = .05 level between the groups (i.e., two terms or less versus three consecutive terms) with respect to all the dependent variables taken together. Therefore, a univariate analysis

of variance (ANOVA) was applied for each of the dependent variables,
i.e., the I-E Rotter Scale, the Tennessee Self-Concept Scale, the
Nelson-Denny Reading Test, and GPA, to test the significant difference
between students who were enrolled for three terms and students who
were enrolled for two terms or less. The results of these tests are
recorded in Table 4.2.

Table 4.2.--Univariate F-tests.

Variable	df	Hypoth. MS	Error MS	F	Sig. of F
Total Reading	1,96	610.62056	792.48939	.77051	.38225
I-E Rotter Scale	1,96	28.27749	13.24073	2.13564	.14718
Tennessee Self-Concept Scale	1,96	40.52938	1185.08728	.03420	.85367
GPA	1,96	51855.68893	9905.10953	5.23525	.02433*

*Significant at alpha = .05.

Table 4.2 indicates which one of the four outcome variables was
really causing the significant difference at alpha level .05 in the
first table. The results show that one of the four outcome variables,
GPA, was the only one considered as causing the significant difference
between the two groups.

Introduction to the Chi-Square Tests

Two chi-square tests were designed to find out if there was a significant relationship between the students' primary goal, the strategy they selected for achieving their goal, and their level of commitment. The primary goals were originally a list of seven possible reasons for attending college, which can be seen in Tables 4.3 and 4.4. The tables illustrate a number of boxes with empty cells. Too many boxes with empty cells will increase the likelihood of a significant relationship appearing to occur between the two variables, even though the actual relationship is not significant. The more cells one has, the more degrees of freedom there are. Therefore, the related categories were collapsed into the two dominating factors reported by students for attending college. The two dominating factors were to obtain training and to take LCC courses leading to transfer or undergraduate study. These collapsed categories were used to complete the chi-square tests for Hypotheses 5 and 6.

Hypothesis 5

Ho 5: There is no significant relationship between the primary goals of the students attending LCC and the strategy they have selected to accomplish them.

A chi-square test was used to find out if a significant relationship existed between the primary goals of the students attending LCC and the strategy they had selected to accomplish them. The alpha level used for this study was .05. The level of significance was .0003, which was less than the alpha level. Therefore, the null

Table 4.3.--Primary goals and strategies for achieving goals.

COUNT ROW PCT COL PCT TOT PCT		Associate	Certificate	Courses Only	Row Total
Obtain Training	1.	37 80.4 56.9 38.5	6 13.0 46.2 6.3	3 6.5 16.7 3.1	46 47.9
Upgrade	2.	1 33.3 1.5 1.0	2 66.7 15.4 2.1	0 0 0 0	3 3.1
Gain	3.	5 71.4 7.7 5.2	2 28.6 15.4 2.1	0 0 0 0	7 7.3
LCC Courses	4.	19 61.3 29.2 19.8	2 6.5 15.4 2.1	10 32.3 55.6 10.4	31 32.3
Individual Courses	5.	0 0 0 0	0 0 0 0	4 100.0 22.2 4.2	4 4.2
No Specific Goal	7.	2 66.7 3.1 2.1	1 33.3 7.7 1.0	0 0 0 0	3 3.1
Other	8.	1 50.0 1.5 1.0	0 0 0 0	1 50.0 5.6 1.0	2 2.1
Column Total		65 67.7	13 13.5	18 18.8	96 100.0

Chi-square = 39.13562   df = 12   Signif. = .0001
Number of missing observations = 2

Table 4.4.--Primary goals and level of commitment.

COUNT ROW PCT COL PCT TOT PCT		Short Term	Long Term	Don't Know	Row Total
Obtain Training	1.	1 2.2 11.1 1.0	36 78.3 54.5 36.7	9 19.6 39.1 9.2	46 46.9
Upgrade	2.	0 0 0 0	2 66.7 3.0 2.0	1 33.3 4.3 1.0	3 3.1
Gain	3.	0 0 0 0	5 71.4 7.6 5.1	2 28.6 8.7 2.0	7 7.1
LCC Courses	4.	5 15.6 55.6 5.1	21 65.6 31.8 21.4	6 18.8 26.1 6.1	32 32.7
Individual Courses	5.	2 50.0 22.2 2.0	1 25.0 1.5 1.0	1 25.0 4.3 1.0	4 4.1
No Specific Goal	7.	0 0 0 0	0 0 0 0	4 100.0 17.4 4.1	4 4.1
Other	8.	1 50.0 11.1 1.0	1 50.0 1.5 1.0	0 0 0 0	2 2.0
Column Total		65 67.7	13 13.5	18 18.8	96 100.0

Chi-square = 32.03060   df = 12   Signif. = .0014

hypothesis was rejected. The chi-square diagram presented in Table 4.5 illustrates the statistical results of the test.

Table 4.5.--Primary goals and strategy for achieving goals (collapsed cells).

	COUNT ROW PCT COL PCT TOT PCT	Associate	Certificate	Courses Only	Row Total
Obtain Training	1.	43 76.8 66.2 44.8	10 17.9 76.9 10.4	3 5.4 16.7 3.1	56 58.3
Transfer	4.	22 55.0 33.8 22.9	3 7.5 23.1 3.1	15 37.5 83.3 15.6	40 41.7
Column Total		65 67.7	13 13.5	18 18.8	96 100.0

Chi-square = 16.34110   df = 2   Signif. = .0003

Row 1 indicates that 76.8 percent of the students who were enrolled had selected earning an associate degree as a strategy for achieving their goal. It was found that 66.2 percent of the students who had selected an associate degree as a strategy indicated obtaining training as their primary goal versus 44.8 percent of the total student population. Row 1 also indicates that 17.9 percent of the students who were enrolled had selected earning a certificate as a strategy for achieving their goal. The analysis showed 76.9 percent of the students

who had selected earning a certificate as a strategy reported obtaining training as their primary goal versus 10.4 percent of the total student population. Row 1 also shows that 5.4 percent of the students who were enrolled had selected taking courses only as a strategy for achieving their goal. It was found that 16.7 percent of the students who had selected taking courses only as a strategy reported obtaining training as their primary goal versus 3.1 percent of the total student population. In summary, 58.3 percent of the students wished to obtain training.

Row 2 indicates that 55 percent of the students enrolled had selected an associate degree as a strategy for achieving their goal. It was found that 33.8 percent of the students who had selected earning an associate degree as a strategy had indicated taking transfer courses as their primary goal, versus 22.9 percent of the total student population. Row 2 also shows that 7.5 percent of the students enrolled selected earning a certificate as a strategy for achieving their goal. It was reported that 23.1 percent of the students who had selected earning a certificate as a strategy had indicated taking transfer courses as their primary goal, versus 3.1 percent of the total student population. The analysis also showed that 37.5 percent of the students enrolled had indicated taking courses only as a strategy for achieving their goal. It was found that 83.3 percent of the students who selected taking courses only as a strategy indicated taking transfer courses as their primary goal, versus 15.6 percent of the total student

population. In summary, 41.7 percent of the students enrolled were interested in taking transfer courses as their primary goal.

In summary, the outcome of the chi-square test showed that 67.7 percent of the total student population had selected earning an associate degree as a strategy for achieving their goal. It was found that 44.8 percent of these students reported obtaining training as their primary goal, whereas 22.9 percent reported taking transfer courses. It was reported that 13.5 percent of the total student population indicated earning a certificate as a strategy for achieving their goal. Only 10.4 percent of these students reported obtaining training as their primary goal, versus 3.1 percent for taking transfer courses. The analysis showed that 18.8 percent of the total student population reported taking courses only, as a strategy for achieving their goal. The results also showed that 3.1 percent of these students reported obtaining training as their primary goal, versus 15.6 percent for taking transfer courses.

Hypothesis 6

Ho 6:   There is no significant relationship between self-commitment and the primary goals of the student.

A chi-square test was used to find out if a significant relationship existed between self-commitment and the primary goals of the student. The alpha level used for this study was .05. The level of significance was .0076, which was less than the alpha level. This indicates that the null hypothesis was rejected. Table 4.6 contains the results of this test.

Table 4.6.--Primary goals and level of commitment (collapsed cells).

COUNT ROW PCT COL PCT TOT PCT		Short Term	Long Term	Don't Know	Row Total
Obtain	1.	1	43	12	56
Training		1.8	76.8	21.4	57.1
		11.1	65.2	52.2	
		1.0	43.9	12.2	
Transfer	4.	8	23	11	42
		19.0	54.8	26.2	42.9
		88.9	34.8	47.8	
		8.2	23.5	11.2	
Column Total		9	66	23	98
		9.2	67.3	23.5	100.0

Chi-square = 9.74746   df = 2   Signif. = .0076

Row 1 indicates that 1.8 percent of the students enrolled were committed to college on a short-term basis. It was found that 11.1 percent of the students committed on a short-term basis reported obtaining training as their primary goal, versus 1.0 percent of the total student population. Row 1 also shows that 76.8 percent of the students enrolled were committed to college on a long-term basis. It was reported that 65.2 percent of the students committed on a long-term basis indicated obtaining training as their primary goal, versus 43.9 percent of the total student population. It was also found that 21.4 percent of the students enrolled had no commitment plan. The results showed that 52.2 percent of the students with no definite commitment

plan indicated obtaining training as their primary goal, versus 12.2 percent of the total student population.

Row 2 indicates that 19 percent of the students enrolled were committed on a short-term basis. It was found that 88.9 percent of the students committed on a short-term basis reported taking transfer courses as their primary goal, versus 8.2 percent of the total student population. Row 2 also shows that 54.8 percent of the students enrolled were committed on a long-term basis. It was reported that 34.8 percent of the students committed on a long-term basis indicated taking transfer courses as their primary goal, versus 23.5 percent of the total student population. The analysis showed 26.2 percent of the students enrolled did not have a commitment plan. The results also showed that students without a commitment plan reported taking transfer courses as their primary goal, versus 11.2 percent of the total student population.

In summary, the outcome of the chi-square test showed that 9.2 percent of the students enrolled were committed on a short-term basis. One percent of these students reported an interest in obtaining training as their primary goal, versus 8.2 percent who expressed an interest in taking transfer courses. It was found that 67.3 percent of the students enrolled were committed on a long-term basis. The analysis showed 43.9 percent of these students indicated an interest in obtaining training as their primary goal, whereas only 23.5 percent indicated an interest in taking transfer courses. It was reported that 23.5 percent of the students enrolled had no commitment plan. The results

also showed that 12.2 percent of these students reported obtaining

training as their primary goal, versus 11.2 percent who indicated

taking LCC courses as transfer courses.

Hypothesis 7

Ho 7:   There is no significant relationship between self-commitment
and the strategy the students have selected to accomplish
their goal.

A chi-square test was used to find out if a significant rela-

tionship existed between self-commitment and the strategy the students

selected to accomplish their goals. The alpha level used for this

study was .05. The level of significance was .0030, which was less

than the alpha level. Therefore, the null hypothesis was rejected.

Table 4.7 illustrates the statistical results of this test.

Row 1 indicates that 33.3 percent of the students who were

enrolled on a short-term basis wanted an associate degree. It was

reported that 4.6 percent of the students who wanted an associate

degree were committed on a short-term basis, versus 3.1 percent of the

total student population. No students enrolled expressed an interest

in obtaining a certificate on a short-term basis. On the other hand,

66.7 percent of the students enrolled on a short-term basis expressed

an interest in only taking courses. It was found that 33.3 percent of

the students enrolled were committed to only taking courses on a short-

term basis, whereas 6.3 percent of the total student population who

were only interested in taking courses were committed on a short-term

basis. In summary, 9.4 percent of the students wished to attend

college on a short-term basis only.

Table 4.7.--Self-commitment and strategy for achieving goals.

COUNT ROW PCT COL PCT TOT PCT		Associate	Certificate	Courses Only	Row Total
Short Term	1.	3 33.3 4.6 3.1	0 0 0 0	6 66.7 33.3 6.3	9 9.4
Long Term	2.	48 73.8 73.8 50.0	9 13.8 69.2 9.4	8 12.3 44.4 8.3	65 67.7
Don't Know	3.	14 63.6 21.5 14.6	4 18.2 30.8 4.2	4 18.2 22.2 4.2	22 22.9
Column Total		65 67.7	13 13.5	18 18.8	96 100.0

Chi-square = 16.02261   df = 4   Signif. = .0030

Row 2 indicates that 73.8 percent of the students enrolled wanted to earn an associate degree. It was found that 73.8 percent of the students who wanted an associate degree were committed on a long-term basis, whereas 50 percent of the total student population were committed on a long-term basis. It was also reported that 13.8 percent of the students enrolled expressed an interest in earning a certificate. The analysis showed 69.2 percent of the students who wanted a certificate were committed on a long-term basis, versus 9.4 percent of the total student population. Row 2 also shows that 12.3 percent of

the students enrolled were only interested in taking courses. It was reported that 44.4 percent of the students interested in taking courses were committed on a long-term basis compared to only 8.3 percent of the total student population. In summary, 67.7 percent were interested in attending school on a long-term basis.

Row 3 shows that 63.6 percent of the students who wished to earn an associate degree did not know how much time they were willing to commit themselves. It was found that 21.5 percent of them were undecided, whereas 14.6 percent of the total student population had no idea. It was reported that 18.2 percent of the students enrolled wanted to earn a certificate. The analysis showed 30.8 percent had no idea of their commitment plans, whereas 4.2 percent of the total population expressed the same feeling. The analysis indicated that 18.2 percent of the students enrolled were only interested in taking courses. The analysis also showed that 22.2 percent of those who only wanted to take courses were undecided, whereas 4.2 percent of the total population did not know either. In summary, 22.9 percent of the population did not know what their commitment plans were.

The outcome of the chi-square test showed 67.7 percent of the total student population were interested in earning an associate degree. The commitment levels were 3.1 percent for short-term, 50 percent for long-term, and 14.6 percent were undecided. It was found that 13.5 percent of the entire population expressed an interest in earning a certificate. The commitment-level representation was zero for short-term, 9.4 percent for long-term, and 4.2 percent for don't

know. The analysis showed that 18.8 percent of the entire population were interested in only taking courses. The commitment plans were 6.3 percent on a short-term basis, 8.3 percent on a long-term basis, and 4.2 percent were undecided.

Summary

In the results of this study as presented in this chapter, two of the seven null hypotheses were rejected and five were accepted. No statistically significant relationship was found between locus of control, self-concept, and academic achievement. However, a statistically significant relationship existed between reading and academic achievement. A statistically significant difference also existed between students who were enrolled for three terms and students who were enrolled for two terms or less, with respect to the I-E Rotter Scale, the Tennessee Self-Concept Scale, the Nelson-Denny Reading Test, and GPA. The ANOVA results indicated that out of the four variables, GPA was the only one considered as causing the significant difference between the two groups.

CHAPTER V

SUMMARY AND CONCLUSIONS

Introduction

The purpose of this study was to investigate the effect of cognitive and noncognitive variables on the academic achievement and motivation of community college students. The variables explored in this study were internal-external locus of control, self-concept, reading ability, primary goals, and GPA. Participation in the techniques of study classes fall term was one characteristic that all the students in this study shared. Therefore, comparisons were made between those students who attended for three consecutive terms versus those who attended for two terms or less.

Chapter II contributed an extensive source of knowledge concerning the theories of behavior related to the process of learning when faced with success or failure. The five major resource sections discussed in detail the relevance of motivation, goal commitment, self-concept, locus of control, and reading ability with respect to academic achievement.

The instruments used in this study were the I-E Rotter Scale, the Tennessee Self-Concept Scale, the Nelson-Denny Reading Test, and a Personal Inventory. Telephone interviews were used to find out why students only attended LCC for one term.

To carry out the analysis, descriptive statistics were used to describe the variables involved in the study. The level of significance for each test was alpha = .05. The tests applied in this study were the Pearson product-moment correlation coefficient, a multivariate analysis of variance (MANOVA), a univariate analysis of variance (ANOVA), and chi-square.

The researcher attempted to answer the seven questions listed below:

1. Is there a significant relationship between academic achievement and internal or external locus of control?

2. Is there a significant relationship between self-concept and academic achievement?

3. Is there a significant relationship between reading ability and academic achievement?

4. Is there a significant difference between students who were enrolled for three terms and students who were enrolled for two terms or less with respect to the I-E Rotter Scale, the Tennessee Self-Concept Scale, the Nelson-Denny Reading Test, and GPA?

5. Is there a significant relationship between the primary goals of the students attending LCC and the strategy they selected to accomplish them?

6. Is there a significant relationship between self-commitment and the primary goals of the student?

7. Is there a significant relationship between self-commitment and the strategy they selected to accomplish their goal?

The Findings

The findings of seven hypotheses that were offered for testing are revealed in the following statements. The results of the Personal Inventory and telephone interviews concerning the primary goals for attending college as reported by the students are also provided, along with their reasons for discontinuing their education. The results of the study are listed below.

1. There was no significant relationship between academic achievement and locus of control.

2. There was no significant relationship between academic achievement and self-concept.

3. There was a significant relationship between reading ability and academic achievement.

4. There was a significant difference between students who were enrolled for three terms and students who were enrolled for two terms or less with respect to the I-E Rotter Scale, the Tennessee Self-Concept Scale, the Nelson-Denny Reading Test, and GPA.

5. There was a significant relationship between the primary goals of the students attending LCC and the strategy they had selected to accomplish them.

6. There was a significant relationship between self-commitment and the primary goals of the student.

7. There was a significant relationship between self-commitment and the strategy the students had selected to accomplish their goal.

8. The students' primary goals for attending Lansing Community College were to obtain training or to take courses that led to transfer or undergraduate degrees.

9. The three major reasons for the students reporting their discontinuing their education were a new job, progress toward academic and career goals, or transfer to another educational setting.

10. Parents and friends were perceived to be most responsible in helping students make educational decisions.

Conclusions

Conclusion 1: The population in this study did not reflect a typical remedial group of students who would be participating in basic-skills programs.

Before the beginning of this study, the researcher assumed that most of the students participating in techniques of study were required to take this course or were also involved in other developmental or remedial courses. According to the results of the descriptive questionnaire, 89 students (90.8 percent) had graduated from high school and only 12 students (12.2 percent) were required to take this course. The results of the Tennessee Self-Concept Scale portrayed a very healthy group of students. Overall, only 16 students out of 98 received a low self-concept score. The GPA for these students was also fairly strong, considering the fact that 25 students (26.9 percent) were working full time and 29 students (31.2 percent) were working part time. Only 15 students earned a GPA that was less than a 2.0. Again, the student population in this study did not portray a GPA that was equivalent to the usual performance expected by a remedial student.

Conclusion 2: Locus of control affected responsibility and
attitude toward learning rather than the grade itself.

The results of the Pearson correlation test showed that there

was not a significant relationship between locus of control and aca-

demic achievement. However, the findings of the ANOVA test that was

applied for each of the dependent variables showed the GPA was the only

variable causing a significant difference between the two groups. The

mean for the entire population was a GPA of 2.86. If one observes the

two groups, the students attending for three consecutive terms had a

GPA mean of 3.07, whereas those students attending for two terms or

less had a GPA of 2.60. This could be expected since attending school

on a regular basis is more concentrated and most students are not in a

position where it is necessary to work full time.

The results of this study also showed that 55 students attended

three consecutive terms, 24 attended for two terms, and 20 attended for

only one term. If one reviews the reasons why the students discontin-

ued their education, one finds that situational or dispositional bar-

riers disrupted the flow of their participation. Lack of academic

progress was related to difficulty in learning, a need to transfer, or

was caused by major life events preventing people from giving their

studies the time required to make the grade. It was not a question of

neglect or lack of motivation. Four examples led the researcher to

believe this was true. One student had been diagnosed as having

dyslexia and was in the process of developing plans with the Meridian

Language Arts Center. Another returned to Eaton Rapids to earn her

GED. A third was making an effort to participate in courses sponsored by the Capitol Area Career Center. The fourth is now enrolled at Madonna College in the undergraduate program for studying about the hearing impaired. All of these people had faith in themselves, despite the difficulties or roadblocks they encountered along the way. The current GPA could not be changed, but the students took intentional steps to improve their situation and alternatives for learning. Believing in oneself is a key to motivation. The more internal the individual, the more likely he/she is to have the self-discipline required to follow through with the behavior that is necessary to achieve a good GPA.

Although locus of control did not have a significant relationship with academic achievement, it did show a trend. Locus of control is a perception that influences a student's behavior and interaction with his meaningful environment. Therefore, if it does not affect GPA, it must affect the student's attitude and responsibility in the process of earning a GPA. Interaction between the personality of an individual and his environment is correlated with how high a level of motivation he will maintain. If the necessary steps for achieving a good GPA are not properly fulfilled, the process for achieving that goal is incomplete. The student must accept the responsibility of following through if he wants to succeed. Some of the ingredients that are needed to successfully set and achieve goals are desire, imagination, concentration, and discipline. Goals can become a reality when these items are transferred into a definite plan of action. However, the student must

believe that his goals are realistic, attainable, challenging, and measurable in terms of progress. They must also be compatible with other personal, company, or family objectives. In conclusion, locus of control has an influence on an individual's behavior and attitude toward achieving good academic standing. The fact that the people perceived to be support systems had a positive attitude toward education enhanced the modeling process for these LCC students as well.

Conclusion 3: Students attending the community college apparently were not reading as much as they were listening.

The Nelson-Denny Reading Test has two sections that make up the total reading score. They are reading vocabulary and reading comprehension. Although the mean for total reading for the entire sample was 11.2, there was not a balance between the two skills. The mean for reading vocabulary was 12.1, and the mean for reading comprehension was 10.3. Although a difference in grade-level equivalence between the mean for vocabulary and the mean for comprehension is not uncommon in groups, this was a sizable difference. This led the researcher to believe that the listening and speaking vocabulary of students is enhanced on a consistent basis through television, communication with people, and the media used in society. In these situations, a need for critical thinking or problem solving is seldom required. People are passive listeners being entertained.

Reading comprehension is a cognitive skill requiring interaction with the printed word. Development of this skill involves contact with the printed word in context on a frequent basis. Otherwise, the

significance of words in print has little meaning. Unless an individual is exposed to a variety of topics of relevance to his being and environment, what he reads has little value. Recreational reading is another alternative for developing an appreciation of reading, but according to the mean of the scores, this no longer appears to be a top priority of students.

Conclusion 4: Students who attended college on a consecutive basis were more likely to have a higher GPA.

The results of the MANOVA test showed that the students who were enrolled for three consecutive terms had a higher GPA than those who were enrolled for two terms or less. The mean for students attending three consecutive terms was 3.07 versus a mean of 2.60 for students attending two terms or less. The mean for the entire sample was 2.86.

According to the Personal Inventory results, there are two possible reasons for why this may be true. At the beginning of the study, 43 students were already enrolled in an associate degree program. Twenty-seven of these students (50 percent) attended LCC for three consecutive terms, while 16 of these students (40 percent) attended LCC for two terms or less. Therefore, the commitment level that was declared and decided upon by students already enrolled in an associate degree program was more highly represented by the students who had attended for three consecutive terms.

When an actual commitment has been made, one is more likely to find students in a concentrated program. An intensive plan of study

can be followed once a decision concerning career goals has been thoroughly processed. Students who attend college on a consecutive basis are more acclimated to the educational environment and seldom experience the trauma of readjustment problems. On the other hand, students who periodically stopout from their program tend to lose sight of their goals and experience frustration when the process of achieving their goals is either too slow or consistently blocked by obstacles that get in their way. Every time they return to college the students must readjust and acclimate themselves to the academic environment. The stress level increases as the individual experiences difficulties created by the transition and the need to develop self-confidence upon re-entry into this educational environment.

The other factor that affects GPA seems to be related to the employment characteristics of these students. According to the Personal Inventory, 25 students were working full time fall term. Seventeen of these students attended LCC for two terms or less, versus eight students who attended for three consecutive terms. A total of 29 students were working part time. Eleven of these students attended LCC for two terms or less, versus 18 who attended for three consecutive terms. It can be seen from these figures that more students were working full time who attended LCC for two terms or less, whereas those students who attended for three consecutive terms represented a higher percentage of students working part time.

The longer the working day, the fewer hours one has to devote to his studies. This can definitely be seen and supported from the

reading scores. The MANOVA test results reported that the mean for

Total Reading for students attending three consecutive terms was 10.9

versus a mean of 11.5 for students attending two terms or less. The

mean for the entire sample was 11.2. These figures show that the

students who attended for two terms or less had a higher reading score

than those who attended for three consecutive terms. However, a larger

percentage of students who attended LCC for two terms or less were

working full time or were not officially committed to an associate

degree at that time. Therefore, between indecision and a longer work-

ing day, it is likely that the overall GPA will be affected. The more

employment responsibility one has for economic survival, the less time

he can commit to studying effectively.

> Conclusion 5: The primary goal of most students attending a
> community college is to prepare or obtain training for a career.

According to the chi-square tests, there were two specific

primary goals that influenced 98 techniques of study students to enroll

in college. The most significant reason reported for participating in

courses was to obtain training in a specific occupation. The second

factor reported as having the most influence on enrolling in college

was to become involved in LCC courses that would lead to transfer or

undergraduate degree programs. These findings support the outcome of

Question 9 in the Personal Inventory, which was designed around the

Morstain and Smart model. The outcome of that question gives signifi-

cance to the primary goal of most community college students being

related to career training.

It was also reported from Question 21 in the Personal Inventory that a major benefit of attending Lansing Community College was their offering of an associate degree program. This was the second major benefit, preceded by the closeness of the college to their home. There was a difference of one response between them.

An interesting observation was to see that 43 out of 98 students were already enrolled in an associate degree program before the beginning of the study. It was also observed in the chi-square tests that the students had selected one of the strategies to accomplish their goal. Sixty-five selected an associate degree, 13 chose a certificate, and 18 decided on courses only. The commitment plan was represented by 9 short-term students, 66 long-term students, and 23 who did not know. Therefore, inspection of these figures indicates that a majority of students attending a community college are planning to attend college on a long-term basis to earn the training required for their career choice. On the other hand, a few only wish to update their current skills or maintain job security.

Conclusion 6: The students who were not already enrolled in an associate degree program during fall term were in the very beginning stages of vocational development.

It is important to consider the relationship between goal orientation and motivation in this study. Seventy-one students (72.4 percent) had a specific goal, 9 students (9.2 percent) had no goal, and 18 students (18.4 percent) were undecided. When asked if they were already enrolled in an associate degree program, 43 (43.9 percent) said "Yes" and 55 (56.1 percent) said "No." Chi-square tests were used to

find out some information concerning the goals of these students. Fifty-six students were interested in obtaining training, and 42 students were interested in courses leading to transfer or undergraduate degree programs. The results of the Personal Inventory reported that 42 out of 98 had not completed any credits at LCC before fall term.

This suggests that one must consider the student in terms of the stages, attitudes, and behaviors involved in the lifelong vocational development of the individual. According to the career-development theories of Super, Tiedeman, and Perry, the students in this study who were not already enrolled in an associate degree program were probably in the very beginning stages of vocational development. Until all alternatives have been considered and a definite plan of action has taken place, the student cannot make a commitment that is realistic with his/her goal. If the student is still exploring career alternatives or options within his field of interest, a decision about strategy cannot be made in a realistic manner. He/she is still in the stages of formulating and reflecting on possible career paths and lacks the necessary information required to make a specific choice. Until that choice is made, no plans for strategy and time commitment can be made in unison with his/her primary goal. The mean age of the students in this study was 26, and the career-development theories state that students between the ages of 14 and 21 are usually undecided about career choices and tend to be freshmen and sophomores in college. The same conclusion can be made for older adults who have raised their families and are returning to school for job training. They must also

experience a natural sequence of development in the career decision process.

Conclusion 7: Lack of academic progress is not the only reason why students at a community college discontinue their education.

The three primary reasons reported by students in the telephone interviews for discontinuing their education were conflicts with a new job, progress toward academic and career goals, or transfer to another school. The results of Question 12 in the Personal Inventory show that situational and dispositional barriers are the major obstacles people encounter while trying to pursue an education. It appears from the findings of this study that institutional barriers had very little influence in the attrition process. On the other hand, if one addresses the concept of life events in relation to the Social Readjustment Rating Scale by Holmes, one may compare the effect of stress brought about by major transitions or trigger events in an individual's life. A variety of these life events with indicated stress levels support the variety of reported reasons why students discontinued their education at the community college. If one reviewed the results of the telephone interviews, he would find this to be true. The entire study population is only a small piece of the total student body attending LCC, and these other factors would probably increase in number if more participants attending and leaving LCC were represented.

<u>Conclusion 8</u>: The friends and parents serving as support systems for the students in this study were education oriented.

Inspection of the Personal Inventory confirmed that parents and friends were the people who had the most influence on students' decision to return to school. One must remember in this study that there were 77 single participants and 21 married participants. The mean age for the entire student population in this study was 26, the median was 22, and the mode was 20. The results showed a majority of the students were young adults with a high school diploma. Only nine had not graduated from high school. However, when one looks at the age for the support person, one finds the mean to be 36, the median 37, and the mode 21.

Review of the Personal Inventory also showed that 4.2 percent of the support people had had one to three years of college, whereas 25.9 percent had had four or more years of college. A total of 67.9 percent of the people named as support systems had had some college background. Only 6.2 percent of those support people had not graduated from high school. This suggests that the support people represented in the study were education minded and understood the importance or value of having some educational training.

The employment background of these support people was explored to find out the level of responsibility they were modeling to the students. It was found that 83.7 percent of the support people were employed, 1.2 percent were laid off, and 15.0 percent were unemployed. Again, this was a good indication that students were receiving advice from people who were secure and self-supporting. Therefore, the

likelihood of increasing a student's level of aspiration to take
intentional steps to become closer to achieving his/her short- or long-
term goals is greater than an individual who has not graduated from
high school. Having an educational background contributes to the
support people's ability to nurture the behavior and attitude of
younger students experiencing indecision about educational training for
career preparation.

Conclusion 9: People who have a positive self-concept are more apt
to participate in developmental courses voluntarily.

The results of this study showed that only 16 students out of
98 received a low self-concept score. However, only 12 students out of
98 were required to take the techniques of study course. This led the
researcher to believe that good students do not let their pride get in
their way. If a particular course will benefit their academic prog-
ress, they are more likely to participate in developmental instruction
than a student who has experienced little success in the past. It is
very possible that the students who need the benefits of this course
most are not the ones signing up for it.

Personal Reflections

Before the beginning of this study, the researcher's perception
of a community college and its present population was like an illusion.
Being a part-time instructor of developmental reading, speed reading,
and techniques of study in both the East and Midwest left the researcher
with a biased view. The researcher truly believed that a majority of

students participating in techniques of study were individuals requiring remedial instruction to update their skills. Instead, the researcher found in this study that most students participating in techniques of study were there to pick up extra pointers that would enhance both their study habits and GPA in college. They did not, on the average, represent a disadvantaged group of students in terms of basic skills.

Another biased view of the researcher was the issue of attrition. Before the beginning of this study it was believed that most students discontinue their education primarily because of lack of academic progress and lack of motivation. The results of the study showed that situational and dispositional barriers had a great influence on a student's ability to pursue his/her coursework on a consistent basis. Therefore, their education must be extended over a longer period of time. How many people have the stamina or endurance to accomplish their goals on a long-term basis, over and above four years, cannot be measured from this study. Attrition rate cannot be examined truthfully unless a study is done over a period of time which considers people who must either work full time or who are faced with other responsibilities that hinder their progress to fulfill goals on an intensive basis.

The researcher also assumed that a majority of students attending the community college were average students who were either not ready or not able to be admitted into a major university their first year. The results of the research showed that the mean GPA for

the total population was 2.86, and only 12 students out of 98 were required to take this course. It was reported that 42.9 percent of these students were interested in courses leading to transfer and undergraduate programs, whereas 57.1 percent were interested in obtaining training for an occupation. The results of the study also showed that only nine people did not have a high school education. In some respects, the researcher still believes this assumption to be true, since a 3.0 average is needed to be accepted into a major university.

The support people of these respondents appeared to be education oriented. A total of 67.9 percent had some college background, whereas only 6.2 percent had not graduated from high school. The fact that 83.7 percent of these support people were employed indicated the possibility of their being secure and self-supporting. Therefore, the researcher has every reason to believe that these people had long-range plans for either supporting or guiding these students toward academic fulfillment of some kind. It is also possible that it is easier financially to begin at a community college and transfer at a later date. The classes at a community college are also smaller and more student oriented, while a major university is dealing with people in numbers rather than on an individual basis. The more informal setting is probably easier to adjust to and quite favorable for students attending college for the first time.

The researcher did expect a larger percentage of older adults to be participating in the techniques of study courses, since many of them were returning to school after raising a family or experiencing

divorce. Although the students in this study were between 18 and 54 years of age, the mean was 26. Therefore, it is likely that adults who have interests other than career training are more apt to be found in community education programs. Those who are oriented toward career training will probably take courses at a community college or major university, depending on their specific goal.

The researcher expected that most of the students would have an external locus of control. Between their age, the nature of the course, and their level of vocational development, it was believed that few would be identified as having an internal locus of control. The results of the study proved this assumption to be false. There were 40 internal and 46 external students, which totally surprised the researcher. However, before the beginning of the study, it was assumed that several students requiring remedial instruction would be in the techniques of study classes. Students of this nature tend to be more external. It is very possible that the students who need the benefits of this course most are not the ones signing up for it.

The researcher assumed that students participating in techniques of study would have a lower self-concept than the average student. Therefore, a wider distribution of high and low self-concept scores was expected to be found. Instead, the results showed that only 16 people received a low self-concept score. The mean for the total self-concept score was 341.031, while the mean for the population used in establishing validity for this test was 345.57. This leads the researcher to believe that low self-concept scores tend to be found

with remedial students. If the mean for GPA was 2.86, it is likely the population of students in this study was a typical, average group of students attending a community college. It is also possibly true that in order to be pursuing the course, when it is not required, is an indication that most of these people felt good about themselves before the beginning of the study.

Implications for Further Research

The population in this study did not reflect a typical remedial group of students who would be participating in basic-skills programs. Therefore, few differences were found between students who attended for three consecutive terms and those who attended for two terms or less. In future studies, two populations should be selected that are extremely different in nature. Otherwise, the effect of cognitive and noncognitive variables will probably be very difficult to measure.

The students in this study were monitored for one academic year. The results showed that many people at a community college will stopout periodically with intentions of returning to college in the future. Situational or dispositional barriers interrupt the flow of their education and make it impossible to continue their coursework on a regular basis. Therefore, future studies concerned with the concept of attrition at community colleges should be planned over a longer period of time for more valid results.

Goal setting is conceptualized as having both a motivational and an informational function. When students set goals they are more likely to attend to instruction, expend effort, and persist. The

results of the Personal Inventory indicated the primary goals of these students and inquired about their perception of realistic plans and commitment. Although the study provided a strong indication that career preparation was their primary goal, one does not know for sure what their vocational maturity level was. This inventory did not assess the participants' specificity, certainty, and satisfaction with their choice of college major and occupation. Therefore, in the future, the researcher would suggest using a career-development inventory that has already been designed to assess factors related to work orientation.

Goal setting also conveys information about performance capabilities when students compare their present accomplishments to their goals. This particular study concentrated on global self-concept rather than academic expectations. The researcher assumed that a majority of the students in techniques of study would be considered developmental students requiring remedial services. The results of the study proved this assumption to be false. Therefore, a more helpful alternative to studying self-concept of students is to apply attribution theory or academic expectations instead. This is essentially another name for academic self-concept and would be more affiliated with the actual learning process rather than the total person's view of himself.

Learning style is another noncognitive variable that was discussed in the literature review, but it was not explored in the study. Personality factors nurture the behavior and attitude of the

individual, which enhances his level of aspiration for achieving and persisting in a classroom setting. It would have been interesting to see what happens to GPA when the learning style of the student and the teaching style of the instructor were not a perfect match. Using a learning style inventory would also assist instructors in determining which learning style works best under all conditions. Again, the whole concept of learning style can offer information concerning how students function in a variety of academic settings.

Motivation is the key factor for all personal investment in educational commitments. It is an abstract quality that is difficult to measure but easy to observe in a student's attitude or behavior. Recent research by Caughren and Kazanas has been done in regard to intrinsic motivation of community college students and the meaning of work. The concepts involved in their research deal with intrinsic motivation, self-enhancement, personal orientation, goal deficiency, and academic performance. Their inventories would offer far more knowledge than the present instruments of this study could provide about motivation and career orientation.

These are a few suggestions that could enhance the quality of the present study. However, this study serves as a good foundation for learning about the typical, average student at a community college. It also lends itself to future research in a variety of directions. Research involving the influence of personality factors on academic achievement at the college level needs more attention. Very little

research has been done in this area, and more time should be devoted to it in order to understand how the noncognitive variables are related to academic achievement.

APPENDICES

APPENDIX A

UNIVERSITY CORRESPONDENCE
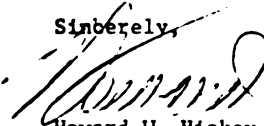
MICHIGAN STATE UNIVERSITY

August 20, 1984

Dr. Henry Bredick
238 Administration Bldg.
MSU Campus

Dear Dr. Bredick:

This is to support Laurene Ziegler's request for approval for her dissertation

proposal from UCRIHS.

I have worked closely with her all along, and believe her dissertation will

certainly meet all the UCRIHS guidelines.

Sincerely,

Howard W. Hickey
Professor

HWH/djh

MICHIGAN STATE UNIVERSITY

September 5, 1984

TO: MS. LAURENE ZIEGLER

FROM: HENRY E. BREDECK, CHAIRMAN, UCRIHS

SUBJECT: PROPOSAL ENTITLED, "THE RELATIONSHIP OF ACADEMIC ACHIEVEMENT TO LOCUS
         OF CONTROL, SELF-ESTEEM, READING ABILITY, SOCIO-ECONOMIC STATUS, AND
         GOAL COMMITMENT"

The above referenced proposal has been distributed for review to a
subcommittee of UCRIHS and one of the reviewers made the following comments.

> "I believe the consent form for subjects should more
> specifically identify the variables to be studied or the
> names of the instruments used. I also believe the state-
> ment that each instrument will take approximately 15
> minutes is misleading, especially regarding Tennessee
> and Nelson-Denny. Finally, will subjects complete these
> instruments in- or out-of-class? That should be clear
> in the consent form."

We would appreciate your early response to these comments so that we
can complete our review of this project.

jms

cc: Dr. Hickey

MICHIGAN STATE UNIVERSITY

October 2, 1984

Miss Laurene L. Ziegler
1622-G Crescent Street
East Lansing, Michigan 48823

Dear Miss Ziegler:

> Subject: Proposal Entitled, "The Relationship of Academic Achievement
> to Locus of Control, Self-Esteem, Reading Ability, Socio-
> Economic Status, and Goal Commitment"
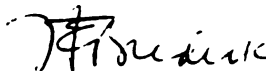
UCRIHS review of the above referenced project has now been completed. I am
pleased to advise that the rights and welfare of the human subjects appear
to be adequately protected and the Committee, therefore, approved this project
at its meeting on October 1, 1984.

You are reminded that UCRIHS approval is valid for one calendar year. If you
plan to continue this project beyond one year, please make provisions for
obtaining appropriate UCRIHS approval prior to October 1, 1985.

Any changes in procedures involving human subjects must be reviewed by the
UCRIHS prior to initiation of the change. UCRIHS must also be notified
promptly of any problems (unexpected side effects, complaints, etc.) involving
human subjects during the course of the work.

Thank you for bringing this project to our attention. If we can be of any
future help, please do not hesitate to let us know.

Sincerely,

Henry E. Bredeck
Chairman, UCRIHS

HEB/jms

cc: Dr. Howard W. Hickey

MICHIGAN STATE UNIVERSITY

COLLEGE OF EDUCATION
DEPARTMENT OF EDUCATIONAL ADMINISTRATION
ERICKSON HALL

EAST LANSING • MICHIGAN • 48824-1034

June 19, 1985

Dr. Julian B. Rotter
Department of Psychology
University of Connecticut
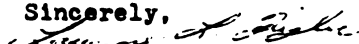Storrs, Connecticut   06268

Dear Dr. Rotter:

I am presently a doctorate student at Michigan State
University who is certified in both reading and learning
disabilities with eight years of experience teaching first
grade. I have dedicated seven years on a part-time basis
to the teaching of adults who require remedial instruction
and would like to devote my research to adult learners
participating in techniques of study classes.

Numerous articles have been written pertaining to the
I-E Rotter Scale, but none of the bibliographies state where
it can be purchased. The authors have only made reference to
Psychological Monographs, 1966, 80 (1, Whole No. 609). This
only provides background knowledge about the I-E Rotter Scale
and the concept of locus of control.

Jack Edwards and L. K. Waters from Ohio University used
a research booklet that contained the Rotter I-E Scale and
four attribution scales. However, the reference wasn't included
in the bibliography of a published article located in the
Educational and Psychological Measurement Journal, Volume 41,
1981, p. 529-31. By any chance, are you familiar with the
name of this research booklet?

Your assistance in sharing the publisher of the research
manual or booklet concerning the administration of the I-E
Rotter Scale would be most appreciated. I am also interested
in any recent research that has used your I-E Scale with
college students. Any references that you can refer me to
would be most helpful. A letter of permission for using your
scale in publishing my research in the future would also be
appreciated. I would be more than willing to share with you
the results of my research if permission is granted. Thank you
for your time and cooperation.

Sincerely,

Miss Laurene L. Ziegler
1622-G Crescent Street
East Lansing, Michigan   48823

THE
UNIVERSITY OF
CONNECTICUT

The College of Liberal Arts and Sciences
Department of Psychology
Box U-20, Room 107
406 Cross Campus Road
Storrs, Connecticut 06268

June 27, 1985

Laurene L. Ziegler
1622-G Crescent Street
East Lansing, Michigan 48823

Dear Ms. Ziegler:

You have my permission to duplicate the I-E
Scale for your doctoral research, providing you are
supervised by or consult with someone who has been
trained in the use and interpretation of personality
measures. Instructions for the administration of the
I-E Scale are included, along with the items, in the
appendix of the 1966 monograph. I am enclosing a
bibliographic note.

Very truly yours,

Julian B. Rotter
Professor of Psychology

JBR/isw
Encl.
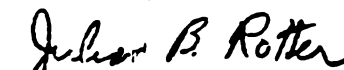
160

Department of PSychology
University of Connecticut
Storrs, Connecticut 06268

June 27, 1985

Dear Ms. Ziegler:

Extensive bibliographies on Internal-External Control are
contained in E. J. Phares, Locus of Control in Personality (General
Learning Press: Morristown, N.J., 1976); H. M. Lefcourt, Locus of Control:
Current Treuds in Theory & Research. 2nd editior. (Lawrence Erlbaum
Associates: Hillsdale, N.J.. 1982); and Lefcourt, Research with the
Locus of Control Construct, Vol. 1: Assessment Methods (Academic Press:
New York, 1981). Additional bibliographies are referred to in J. B. Rotter,
Some Problems and Misconceptions Related to the Construct of Internal vs.
External Control of Reinforcement, JCCP, 1975, 43, 56-67.

Very truly yours,

Julian B. Rotter
Professor of Psychology

JBR/lsw

APPENDIX B

RESEARCH FORMS, QUESTIONNAIRES, AND

RELATED INFORMATION

September 20, 1984

Dear Techniques of Study Students:

I am presently a doctorate student at MSU who has taught techniques of study at Lansing Community College for two years. The purpose of my research is to study the relationship of motivation and persistence to academic achievement in a community college, with students enrolled in study skills classes. It is my intention to administer one questionnaire and three instruments related to learning, to each student who is willing to participate and volunteer their support. Individual feedback for each student will be provided before the end of the term. Students interested in the final results of the study may contact me in the spring at the address or telephone number listed below. The relationship of academic achievement to locus of control, self-esteem, reading ability, socioeconomic status, and goal commitment will be studied. Students will be asked to complete the following instruments in class periodically throughout the term.

Personal Inventory	15 minutes
I-E Rotter Scale	15 minutes
Tennessee Self-Concept Scale	20 minutes
*Nelson-Denny Reading Test	45 minutes

*The Nelson-Denny Reading Test has always been a part of the techniques of study curriculum.

All results of this study will be treated with strict confidence, and your names will only be used for the recording of data. Only group data will be reported in the final research report. Participation in the study or the decision to withdraw will be of the student's free choice and will not in any way affect the completion of the class in which students are enrolled. Your time and cooperation would be greatly appreciated.

Sincerely,

Miss Laurene L. Ziegler
1622-G Crescent Street
East Lansing, Michigan 48823
355-9862

PERMISSION FORM

Please check one.

_____ Yes. I hereby give my consent to support your research by completing the questionnaire and three instruments.

_____ No. I do not wish to participate.

Signature of participant _____

Date _____

PERSONAL INVENTORY

1. Name_____

2. Sex and Marital Status

   _35_ Single Male   _9_ Married Male

   _41_ Single Female   _13_ Married Female

3. Age __18-54__

4. Ethnic Background (Please check one.)

   __1_ American Indian or Alaskan Native
   __2_ Asian or Pacific Islander
   _14_ Black--Non-Hispanic Origin
   __7_ Hispanic and Chicano
   _74_ White--Non-Hispanic
   __0_ Non-Resident Alien and All Others

5. Are you an international student?   _3_ yes   _95_ no

6. Is English your second language?   _6_ yes   _91_ no

7. Are you a handicapper?   _8_ yes   _90_ no

8. What was the last grade you completed in high school?

   __2_ 9th grade

   __3_ 10th grade

   __3_ 11th grade

   _89_ 12th grade

   __1_ other

9. Which benefits offered attracted you to Lansing Community College?
   (Check all that apply.)

   _36_ Financial services
   _13_ Tutorial services
   _14_ Counseling
   _48_ Closeness to your house
   _12_ Job placement upon completion
   __5_ Social and recreational activities
   _17_ Special courses in reading, math, and writing
   _47_ Associate degree programs
   _40_ Variety of times when classes are offered
   ____ Other (Please specify.)_____

10. Have you previously attended any classes at Lansing Community
    College?   _62_ yes   _36_ no

If yes, please answer question 11.

11. When did you last attend LCC?   (Please indicate.)

      2 Fall 1982   4 Fall 1983
      2 Winter 1983   18 Winter 1984
      4 Spring 1983   19 Spring 1984
      4 Summer 1983   9 Summer 1984

      Other: (Please specify.)_____

12. If you previously attended LCC and stopped, what were your primary reasons for discontinuing your education?   (Check all that apply.)

      4 Finances
      0 Don't want to go to school full time
      2 Afraid that I'm too old to begin
      9 Not enough time
      0 Amount of time required to complete program
     12 Low grades in the past, not confident of my ability
      9 Home responsibilities
      1 Courses aren't scheduled when I can attend
      6 Not enough energy and stamina
     12 Job responsibilities
      1 No information about offerings
      4 Don't enjoy studying
      1 No child care
      2 Strict attendance requirements
      9 Tired of school, tired of classrooms
      3 Transportation

13. How many college credits have you completed at LCC?   _____

14. Are you presently enrolled in an associate degree program?   (Major)

      43 yes   55 no

15. Is techniques of study a required course for you?   12 yes   86 no

16. If not required, why did you enroll in it?_____

_____

17. Please check one.

     71 I have a specific goal.
      9 I do not have a specific goal.
     18 I am undecided.

18. How long do you plan to take courses at LCC?

      9 On a short-term basis (1 or 2 terms)
     66 On a long-term basis (3 or more terms)
     23 Don't know

19. What is your primary goal at LCC?

   _46_ obtain training in a specific occupational program
   _3_ upgrade your current job skills
   _7_ gain new job skills in order to change occupations
   _32_ take LCC courses that lead to transfer and an undergraduate
       degree
   _4_ take individual courses of personal interest
   _0_ use college resources such as photography lab, PE facilities,
       etc.
   _4_ I do not have a specific goal at this time.
   _2_ Other: (Please explain.)_____

20. To accomplish your goal, will you

   _65_ earn an associate degree?
   _13_ earn a certificate?   2 blank
   _18_ take courses only?

21. Which factors helped you in your decision to return to school?
   (Check all that apply.)

   _24_ To make new friends
   _13_ To carry out the recommendation of some authority
   _37_ To improve my ability to serve mankind
   _60_ To secure professional advancement
   _20_ To get a break in the routine of home or work
   _33_ To seek knowledge for its own sake
   _20_ To fulfill a need for personal associations and friendships
   _4_ To comply with instructions from someone else
   _13_ To improve my ability to participate in community work
   _21_ To give me a higher status in my job
   _14_ To get relief from boredom
   _30_ To learn just for the sake of learning

22. Which of the above were the two most important reasons for you
   to return to school? (Please specify.)

   _____

   _____

23. Which people listed below helped you in your decision to return
   to school? (Check all which apply.)

   _10_ school counselor   _50_ parents
   _5_ teacher   _12_ children
   _42_ friends (people you work or _8_ employer
       socialize with)   _15_ spouse
   _21_ companion (male/female)   _29_ Other: (Please specify.)
   _9_ nonrelatives
                                    _____

24. Of the above, which individual had the most impact in your decision
   to return to school? (Pick one.) _____

   Why? _____

25. If there is a person whom you turn to for support in making impor-
tant decisions, please complete the following questions (25-33).

26. Relationship of the person to you:

    _8_ Husband   _3_ Sister
    _7_ Wife   _1_ Brother
    _16_ Male companion   _1_ Other relative(s)
    _12_ Female companion   _3_ Nonrelatives
    _18_ Mother   _6_ Other: (Please specify.)
    _5_ Father
    _2_ Children   _____

27. What is the age of this person?   _18-84_

28. What is the sex of this person?   _45_ Female   _36_ Male   17 blank

29. What is the race of this person?

    ____ American Indian or Alaskan Native
    _2_ Asian or Pacific Islander
    _14_ Black--Non-Hispanic origin   17 blank
    _4_ Hispanic and Chicano
    _61_ White--Non-Hispanic
    ____ Non-Resident Alien and all others

30. How much education has this person had?

    _5_ Less than four years of high school
    _18_ Four years of high school
    _34_ One to three years of college   17 blank
    _21_ Four or more years of college
    _3_ Other vocational education after high school (Please specify.)

    _____

31. Is this person   _67_ employed,   _1_ laid off,   or _12_ unemployed?
        18 blank

32. If laid off, what was the job? (Please specify.)_____

33. If employed, what is the job? (Please specify.)_____

34. Are you currently employed?

    _25_ full time
    _29_ part time
    _11_ not employed, seeking employment
    _26_ not employed, not seeking employment because of other
         responsibilities
    _2_ underemployed (underpaid or overskilled for the job)

    5 blank

STUDENT QUESTIONNAIRE

Date Completed:_____   Student Number_____

Which of the following factors were responsible or not responsible in making a decision to discontinue your education or temporarily withdraw from LCC? Circle one for each category.

	Not Responsible			Responsible	
My financial situation	1	2	3	4	5
My new job	1	2	3	4	5
My change in work hours	1	2	3	4	5
My full-time job while going to school	1	2	3	4	5
My part-time job while going to school	1	2	3	4	5
My lack of family support	1	2	3	4	5
My lack of friends' support	1	2	3	4	5
My rapport with faculty	1	2	3	4	5
My indecision about career choice	1	2	3	4	5
My education is not my first priority	1	2	3	4	5
My commitment to off-campus goals is more important than learning	1	2	3	4	5
My caring for others dear to me came in conflict with pursuing my own interests	1	2	3	4	5
My prerequisite courses in reading, math, and writing are taking too long to complete	1	2	3	4	5
My lack of requirements to begin a major program	1	2	3	4	5
My poor study habits	1	2	3	4	5
My grade point average does not please me	1	2	3	4	5
My health	1	2	3	4	5
My change in residence	1	2	3	4	5
My adjustment to living independently	1	2	3	4	5

Interview Results

Ninety-eight students were monitored for three consecutive terms, beginning in the fall of 1984. Out of this total population, 54 students attended Lansing Community College (LCC) for three consecutive terms and 44 attended for two terms or less. Twenty students out of the 44 only attended LCC during fall term. The 20 students are represented by 12 females and 8 males, which is fairly well balanced since the participants in the entire study were represented by 53 females and 45 males. These 20 students were contacted individually by telephone at the end of spring term by the researcher to find out the primary reasons for temporary withdrawal or discontinuation of their education. Two students could not be reached by telephone and were sent a questionnaire to be returned in a self-addressed envelope. Communication from them was never received. The tabulation on the following page illustrates the variety of reasons they shared for leaving LCC temporarily. There were three major reasons for the students reporting their discontinuing their education.

The first reason was a new job. During fall term, five students out of the 18 were hired by the automobile industry and were putting in long hours. The respondents reported very little time or energy remained for educational growth.

The second major factor reported as influencing withdrawal from LCC was progress toward academic and career goals. Three students fell into this category. One student was diagnosed as having dyslexia, another who was receiving a Pell Grant was kicked out because he did not maintain a 2.0 average in all his courses, and the third lost

interest before the end of fall term. The student with dyslexia is presently in the process of developing plans with the Meridian Language Arts Center and has applied for a scholarship because she does not have the funds to finance the cost of the tutoring to correct her problem. The student who was not allowed to continue at LCC is now participating in an accounting course sponsored by the Capitol Area Career Center at no charge. It has some affiliation with adult education through the public schools. The third individual had a lot of family support, but found no relevance or success in his academic experience at LCC.

Reasons for Temporary Withdrawal or Discontinuation of Their Education	Frequency
My change in work hours	1
Two part-time jobs while attending school	1
Divorce	1
Financial situation	1
My education is not my first priority	1
Health	1
Courses aren't scheduled when I can attend--Cancellation of courses	1
Marriage	1
Transfer to another school	2
Progress toward academic and career goals	3
My new job	5
Total	18

The third factor dealt with transfer to another educational setting. Two students reported this as the factor for leaving. The first student attended Madonna College winter and spring terms and is enrolled in the undergraduate program for studying about the hearing impaired. The other student had not earned a high school diploma and

decided she was not ready for LCC. Therefore, she enrolled in the GED program in Eaton Rapids winter and spring terms and finished in June 1985. With the exception of the individual who experienced divorce as a major reason for withdrawal, all of the other students expressed a desire to return to school.

The outcome of these interviews suggests that most students temporarily withdraw because of situational barriers related to work, progress toward academic and career goals, or personal dispositions. Personality factors or noncognitive variables such as locus of control or self-concept do not appear to have great impact on the final decision concerning temporary withdrawal. A common observation made from interaction with the students during the study and from the individual interviews was that once employment became a reality, the need for an education no longer seemed to be important. Education is a means to obtain job security and economic survival. Once that is accomplished, their goal is satisfied, and education is no longer considered a top priority in their lives.

It is an interesting observation to see that the two types of goal-oriented students correlate with the three major reasons why students withdrew or temporarily discontinued their education. Therefore, one can conclude that an individual has achieved his goal, is expanding on his goal, or has experienced academic difficulty.

INSTRUCTIONS FOR THE I-E SCALE

This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of alternatives lettered a or b. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you're concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief: obviously there are no right or wrong answers.

Your answers to the items on this inventory are to be recorded on a separate answer sheet which is loosely inserted in the booklet.

Please answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice. Find the number of the item on the answer sheet and black-in the space under the number 1 (equals a) or under the number 2 (equals b) which you choose as the statement more true.

In some instances you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to respond to each item independently when making your choice; do not be influenced by your previous choices.

1. (a) Children get into trouble because their parents punish them to much.
   (b) The trouble with most children nowadays is that their parents are too easy with them.

2. (a) Many of the unhappy things in people's lives are partly due to bad luck.
   (b) People's misfortunes result from the mistakes they make.

3. (a) One of the major reasons why we have wars is because people don't take enough interest in politics.
   (b) There will always be wars, no matter how hard people try to prevent them.

4. (a) In the long run people get the respect they deserve in this world.
   (b) Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5. (a) The idea that teachers are unfair to students is nonsense.
   (b) Most students don't realize the extent to which their grades are influenced by accidental happenings.

6. (a) Without the right breaks one cannot be an effective leader.
   (b) Capable people who fail to become leaders have not taken advantage of their opportunities.

7. (a) No matter how hard you try some people just don't like you.
   (b) People who can't get others to like them don't understand how to get along with others.

8. (a) Heredity plays the major role in determining one's personality.
   (b) It is one's experiences in life which determine what they're like.

9. (a) I have often found that what is going to happen will happen.
   (b) Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10. (a) In the case of the well prepared student there is rarely, if ever, such a thing as an unfair test.
    (b) Many times exam questions tend to be so unrelated to course work that studying is really useless.

11. (a) Becoming a success is a matter of hard work, luck has little or nothing to do with it.
    (b) Getting a good job depends mainly on being in the right place at the right time.

12. (a) The average citizen can have an influence in government decisions.
    (b) This world is run by the few people in power, and there is not much the little guy can do about it.

13. (a) When I make plans, I am almost certain that I can make them work.
    (b) It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14. (a) There are certain people who are just no good.
    (b) There is some good in everybody.

15. (a) In my case getting what I want has little or nothing to do with luck.
    (b) Many times we might just as well decide what to do by flipping a coin.

16. (a) Who get to be the boss often depends on who was lucky enough to be in the right place first.
    (b) Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.

17. (a) As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
    (b) By taking an active part in political and social affairs the people can control world events.

18. (a) Most people don't realize the extent to which their lives are controlled by accidental happenings.
    (b) There really is no such thing as "luck".

19. (a) One should always be willing to admit mistakes.
    (b) It is usually best to cover up one's mistakes.

20. (a) It is hard to know whether or not a person really likes you.
    (b) How many friends you have depends upon how nice a person you are.

21. (a) In the long run the bad things that happen to us are balanced by the good ones.
    (b) Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22. (a) With enough effort we can wipe out political corruption.
    (b) It is difficult for people to have much control over the things politicians do in office.

23. (a) Sometimes I can't understand how teachers arrive at the grades they give.
    (b) There is a direct connection between how hard I study and the grades I get.

24. (a) A good leader expects people to decide for themselves what they should do.
    (b) A good leader makes it clear to everybody what their jobs are.

25. (a) Many times I feel that I have little influence over the things that happen to me.
    (b) It is impossible for me to believe that chance or luck plays an important role in my life.

26. (a) People are lonely because they don't try to be friendly.
    (b) There's not much use in trying too hard to please people, if they like you, they like you.

27. (a) There is too much emphasis on athletics in higher school.
    (b) Team sports are an excellent way to build character.

28. (a) What happens to me is my own doing.
    (b) Sometimes I feel that I don't have enough control over the direction my life is taking.

29. (a) Most of the time I can't understand why politicians behave the way they do.
    (b) In the long run the people are responsible for bad government on a national as well as on a local level.

APPENDIX C

RELATED INSTRUMENTATION FROM OTHER STUDIES

PLEASE NOTE:

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

These consist of pages:

APPENDIX C: 175-177

Perceived Barriers to Learning

Barriers	Percent of Potential Learners[a]
Situational Barriers	
Cost, including tuition, books, child care, and so on	53
Not enough time	46
Home responsibilities	32
Job responsibilities	28
No child care	11
No transportation	8
No place to study or practice	7
Friends or family don't like the idea	3
Institutional Barriers	
Don't want to go to school full time	35
Amount of time required to complete program	21
Courses aren't scheduled when I can attend	16
No information about offerings	16
Strict attendance requirements	15
Courses I want don't seem to be available	12
Too much red tape in getting enrolled	10
Don't meet requirements to begin program	6
No way to get credit or a degree	5
Dispositional Barriers	
Afraid that I'm too old to begin	17
Low grades in past, not confident of my ability	12
Not enough energy and stamina	9
Don't enjoy studying	9
Tired of school, tired of classrooms	6
Don't know what to learn or what it would lead to	5
Hesitate to seem too ambitious	3

[a]Potential learners are those who indicated a desire to learn but who are not currently engaged in organized instruction.

Source: Adapted from Carp, Peterson, and Roelfs, 1974, p. 46.

Source: A. Carp, R. Peterson, and P. Roelfs, "Adult Learning Interests and Experiences. In K. P. Cross, J. R. Valley, and Associates, Planning Non-Traditional Programs: An Analysis of the Issues for Postsecondary Education. San Francisco: Jossey-Bass, 1974.

Factor I. Social Relationships

- To fulfill a need for personal associations and friend-ships
- To make new friends
- To meet members of the opposite sex

Factor II. External Expectations

- To comply with instructions from someone else
- To carry out the expectations of someone with formal authority
- To carry out the recommendation of some authority

Factor III. Social Welfare

- To improve my ability to serve mankind
- To prepare for service to the community
- To improve my ability to participate in community work

Factor IV. Professional Advancement

- To give me higher status in my job
- To secure professional advancement
- To keep up with competition

Factor V. Escape/Stimulation

- To get relief from boredom
- To get a break in the routine of home or work
- To provide a contrast to the rest of my life

Factor VI. Cognitive Interest

- To learn just for the sake of learning
- To seek knowledge for its own sake
- To satisfy an inquiring mind

Source: B. R. Morstain and J. C. Smart, "Reasons for Participation in Adult Education Courses: A Multivariate Analysis of Group Differences," Adult Education 24(2) (1974): 83-98.

Social Readjustment Rating Scale

Life Event	Scale Value
Death of spouse	100
Divorce	73
Marital separation	65
Jail term	63
Death of a close family member	63
Major personal injury or illness	53
Marriage	50
Fired from work	47
Marital reconciliation	45
Retirement	45
Major change in health of family member	44
Pregnancy	40
Sex difficulties	39
Gain of a new family member	39
Business readjustment	39
Change in financial state	38
Death of a close friend	37
Change to a different line of work	36
Change in number of arguments with spouse	35
Mortgage over $10,000	31
Foreclosure of mortgage or loan	30
Change in responsibilities at work	29
Son or daughter leaving home	29
Trouble with in-laws	29
Outstanding personal achievement	28
Wife begins or stops work	26
Begin or end school	26
Change in living conditions	25
Revision of personal habits	24
Trouble with boss	23
Change in work hours or conditions	20
Change in residence	20
Change in schools	20
Change in recreation	19
Change in church activities	19
Change in social activities	18
Mortgage or loan less than $10,000	17
Change in sleeping habits	16
Change in number of family get-togethers	15
Change in eating habits	15
Vacation	13
Christmas	12
Minor violations of the law	11

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179

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