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Promoting the cognitive development of high-risk college students through a study/life skills seminar

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PROMOTING THE COGNITIVE DEVELOPMENT OF HIGH-RISK COLLEGE STUDENTS THROUGH A STUDY/LIFE SKILLS SEMINAR

A Dissertation

Presented to

The Faculty of the School of Education

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In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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by

Sandra Ann Loew

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PROMOTING THE COGNITIVE DEVELOPMENT OF HIGH-RISK COLLEGE STUDENTS THROUGH A STUDY/LIFE SKILLS SEMINAR

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TABLE OF CONTENTS

CHAPTER ONE

INTRODUCTION 2
Description of the Problem 3
The Freshman Seminar 7
Cognitive Developmental Theory 8
Intellectual Developmental Theory 9
Conceptual Developmental Theory 10
Purpose of the Study 11
Definition of Terms 11
Research Hypotheses 12
Sample and Data Gathering 12
Limitations 12
Summary 12

CHAPTER TWO

A SELECTED REVIEW OF THE LITERATURE 14
College Student Development 14
The Freshman Seminar 18
College Student Development and Perry's Scheme 25
College Student Development and Conceptual Level 28
Development of Study Skills 32
Deliberate Psychological Education 35
Summary 38

CHAPTER THREE

DESIGN AND METHODOLOGY 40
Population and Sample 40
Data Gathering 41
Instrumentation 41
Learning Environment Preferences (LEP) 41
Paragraph Completion Method (PCM) 42
Survey of Study Habits and Attitudes (SSHA) 42
Research Design 43
Hypotheses 43
Data Analysis 44
Ethical Considerations 44
Critique 44
Internal Validity 44
External Validity 45
Summary 45

CHAPTER FOUR

DESCRIPTION OF THE INTERVENTION 47

Introduction 47
College Studies 101 47
Beginning the Semester 48
Week Two 49
Week Three 50
Week Four 50
Week Five 51
Week Six 52
Week Seven and Eight 52
Week Nine 53
Week Ten and Eleven 54
Week Twelve and Thirteen 54
Ending the Semester 55
The Comparison Group 56
Summary 56

CHAPTER FIVE
RESULTS 57
Introduction 57
Descriptive Statistics 57
Analysis of the Research Hypotheses 61
Hypothesis One 63
Hypothesis Two 63
Hypothesis Three 64
Hypothesis Four 66
Additional Analyses 67
Qualitative Description 67
Summary 69

CHAPTER SIX
DISCUSSION AND CONCLUSIONS 70
Introduction 70
Limitations of the Study 70
Suggestions for Further Research 76
Conclusion 81

APPENDICES
Experimental Group Syllabus 83
Experimental Group Weekly Paper Topics 88
Experimental Group Discussion Topics 90
Comparison Group Syllabus and Outline 103
Informed Consent Form 113
Demographics Questionnaire 115
Learning Environment Preferences (LEP) 117
Survey of Study Habits and Attitudes (SSHA) 125

Paragraph Completion Method (PCM) 131

REFERENCES

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"At each stage of learning we must give up something even if it is a way of life that we have always known." Ginivee (an aboriginal woman)

LIST OF TABLES

Table 1 - Description of Gender of Students 58
Table 2 - Description of Age of Students 59
Table 3 - Description of Educational Level of Students 59
Table 4 - Description of Race of Students 59
Table 5 - Description of Residence of Students 60
Table 6 - Description of Full-Time or Part-Time Status of Students 60
Table 7 - Description of Students' Reason for Taking the Course 60
Table 8 - Independent Samples T-Test 61
Table 9 - Test of Within-Subjects Effects (LEP & PCM) 63
Table 10 - Multivariate Test (SSHA) 64
Table 11 - Means of all Scores 65
Table 12 - Means of Scores Used in Statistical Analyses 65
Table 13 - Chi-Square Test 66

PROMOTING THE COGNITIVE DEVELOPMENT OF HIGH-RISK COLLEGE STUDENTS THROUGH A STUDY/LIFE SKILLS SEMINAR

ABSTRACT

Studies have shown that college provides an environment that is conducive to cognitive development, and the freshman seminar has been shown to be effective in assisting students in making the transition to college. This study examines the cognitive developmental process that occurs for high-risk college students during a semester long study skills course. This was a quasi-experimental design with an experimental and a comparison group that was pretested and posttested using the Learning Environment Preferences (LEP), the Paragraph Completion Method (PCM), and the Survey of Study Habits and Attitudes (SSHA). The method of instruction for the experimental group was a Deliberate Psychological Education model that provided opportunities for reflection, and support and encouragement. While the retention rates were promising for these students, there was no statistical significance on the outcome of the measures used. This study provided a framework for further research with this population.

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PROMOTING THE COGNITIVE DEVELOPMENT OF HIGH-RISK COLLEGE STUDENTS THROUGH A STUDY/LIFE SKILLS SEMINAR

CHAPTER ONE

Introduction

Anonymous students, College Studies 101, Fall 1997, Christopher Newport University:

> In five years I hope to be graduated from CNU. That is the easiest thing to say I am going to have accomplished. I hope to meet the girl of my dreams and live with her and be going to graduate school. I might have already met the girl of my dreams but I'm not sure my high school sweetheart and I will last five years. Who knows, we have been together for a year and eight months already. After graduate school I plan on joining the Peace Corps and hopefully going to Africa for two years if I am not in a serious relationship. If I have met someone special I will probably try to join the police force, FBI, etc. to help me gain experience to open my own private investigation agency in Atlanta or Virginia Beach. Most likely my feelings will change and I will just do whatever feels right at the time.
>
> In the next five years I plan on finishing out school and becoming a nurse. If I don't get into the nursing program here then I will probably go home and go to the nursing school near my house. Either the year I graduate from college or the year after I think Jason and I will be getting married. I want to be either 22 or 23 years old when I get married. I really don't know if the man I marry will be Jason. Depending on how things go the next couple of years we may or may not get married. It just depends. Hopefully I'll be able to go abroad my junior year. I'm hoping to go to England. That's where I plan to be in the next five years.

Description of Problem

When a college or university admits a student, there is the hope on the part of the school and the student that the student will graduate in four years. Many colleges have admissions standards that indicate a certain level of aptitude which suggests the student will succeed in higher education. After World War II, colleges grew to meet the new demand created by the GI Bill, and today, higher education is an industry. Now colleges must compete for students, and possibly lower admission standards, to maintain the increased faculty and expanded campuses (Finn, 1978, Jones & Watson, 1990). Also, the desire to develop a diverse population on campus is a goal of many institutions of higher learning; therefore, more colleges are admitting students that are considered to be at risk of dropping out or failing.

Colleges want their students to be successful, i.e. graduate, because graduation rates are perceived by the public to be indicators of the quality of a particular college. Generally, schools with high graduation rates start out with higher achieving students as freshmen than schools with low graduation rates; therefore, colleges with less stringent admission standards may have to provide more resources to retain students to successful completion of a degree. All colleges have high-risk students, however, because even highly selective schools admit students at the low end of their admission criteria.

Jones and Watson (1990) defined high-risk students as "minorities, academically disadvantaged, the disabled, and those of low socioeconomic status" (p. iv). They also made a distinction between non-traditional and high-risk students: non-traditional students are generally older than twenty-five, and may or may not be considered high-risk.

Minorities may be considered high-risk because higher education in the United States reflects the cultural values of the white, middle-class (McEwen, Roper,

Bryant, & Langa, 1990). Minority students must interact with the dominant culture with little or no environmental supports (Hughes, 1987). Numerous students are admitted to college on a probationary basis because they failed at a previous attempt at higher education and these students may be considered high-risk for failure (Jones & Watson, 1990). Students may also be considered high-risk if English is not their first language or if college is their first opportunity to attend school in the United States, although Jones and Watson (1990) found that environmental factors facing international students may have more of an impact than individual factors. Students considered to be high-risk may be traditional age (18 years) who test poorly and have low Scholastic Aptitude Test scores, or who may test well but their high school work does not show the promise that the test scores indicate. Returning students who are older with family and job commitments may be in the high-risk category because they have been away from the academic setting and may not have the required study skills or time management ability.

Terenzini, Springer, Yaeger, Pascarella, and Nora (1996) stated first-generation college students are at a disadvantage because they may have less family support than other students. Cunningham and Tidwell (1990) agreed that parents' level of education is generally related to socioeconomic status and has an impact on students' preparation for the college environment.

High-risk students face many challenges in making the adjustment to college and those that cannot make the adjustment may drop out or fail. According to Jones and Watson (1990), those who do not complete their college education face a lifetime of earning less money than college graduates. They also have less comprehensive fringe benefit packages and less desirable working conditions (p.22). Colleges and universities also suffer when students fail because attrition makes it difficult to strategically plan for curriculum, facilities, and funding. The

costs for facilities are fixed so high attrition rates impact the overhead of the college or university (Jones & Watson, 1990). The authors summed up their concerns about high-risk students:

> It is often said that education is a social good with benefits accruing to the broader society. The converse is also true. The opportunity costs associated with risk and attrition ultimately reduce the growth, development, and potential accomplishments of the broader society. (p.32)

Chickering (1969) stated that college graduates will be the leaders of tomorrow; thus it is essential for higher education to provide the experiences that promote development of those future leaders. His theory of college student development was based on his longitudinal research as Director of the Project on Student Development at Small Colleges and a synthesis of an extensive review of the literature concerning college students:

> Developmental changes do occur during this period. Numerous cross-sectional and longitudinal studies of college students indicate that changes occur in attitudes, interests, values, future plans and aspirations, openness to impulses and emotions, personal integration, and intellectual ability. Such changes have been found for diverse students in diverse institutions. Some of these changes are shared by those who do not attend college; but college does make a difference. (p.2)

Chickering (1969) did not desire to add depth to the existing research, but to bridge knowledge and current practice in colleges and universities to improve educational effectiveness. His goal was to develop a framework that was both general and simple, and that could be applied in higher education by administrators, faculty, others working with students, or those making decisions that impact students. According to Widick, Parker, and Knefelkamp (1978) his work is a "classic" (p.19) for anyone involved in college student development.

Chickering's (1969) seven vectors of development are: "competence, emotions, autonomy, interpersonal relationships, purpose, identity, and integrity" (p.8), and they are interrelated, with identity being a central point that connects competence, emotions, and autonomy with interpersonal relationships, purpose, and integrity. Ideally, a college student will identify and test intellectual, physical, and interpersonal competencies and increase their skills in those areas. A certain level of competence will encourage increased testing of these areas and, spiral-like, the student will develop higher levels of competency. Developing self-control through an increased awareness of emotions and the ability to manage them is another task for college students (p.53). Autonomy is achieved by becoming emotionally independent from parents and authorities, which in turn leads to interdependence or an understanding of the connection between freedom and responsibility. Establishing identity is the central vector that connects the first three with the last three. As competence, emotional maturity, and autonomy are developing successfully then identity becomes more stable and provides a structure upon which to build interpersonal relationships, purpose, and integrity. (p.80) Chickering was so adamant concerning this vector that he stated: "In twentieth-century society, where change is the only sure thing, not socialization but identity formation becomes the central and continuing task of education" (p.92).

The ability to be more tolerant of others is an important aspect of participating in fulfilling interpersonal relationships and it is a task for developing college students. Clarifying purposes and developing interests and plans is part of the process that must occur for college students, according to Chickering (1969). As a student establishes an identity, participates in meaningful interpersonal relationships, and constructs a purpose, then integrity is developed and an internal set of values that guide the student in personal decision-making is implemented.

Reisser (1995) assisted Chickering in updating Education and Identity (Chickering, 1969) to reflect research that has been done in recent years, and they incorporated new findings and adapted the theory for a more diverse population. The first vector continues to be called "developing competence" (p.506) and the second is still "managing emotions" (507). The third vector is now called "moving through autonomy toward interdependence" rather than "developing autonomy" (p.507), and it adds the focus on interdependence that was not included in the original paradigm. They recognized there may be differences based on gender with males attempting to become autonomous by following rules, separating, and assessing individual rights, while females tend to approach autonomy in ways that preserve relationships.

Reisser (1995) reported they moved the vector concerning relationships to the fourth rather than the fifth position because they recognized from the research that relationships may precede autonomy. Interpersonal relationships provide learning experiences that influence identity formation through the exploration of feelings, communication, and values. The fifth vector continues to be "establishing identity" (p.509), which still encompasses the preceding vectors, and the last two vectors have not been changed. The authors recommend continuing the research to explore the interplay between theory and practice, and to broaden the theory base of the field of college student development.

The Freshman Seminar

One of the resources colleges and universities have incorporated in recent years is the study skills course. Also known as the freshman seminar or college survival course, it is designed to help ease the transition for new or returning college students. The courses provide opportunities for students to evaluate their skills and to develop new or more effective skills in areas such as note-taking, test-taking, and time management. They also encourage students to explore issues

they may be facing for the first time, such as living in a residence hall, managing their own money, and making their own decisions.

Barefoot (1992) traced the history of freshman seminars and found that they have been developed:

> ... to provide a kinder, gentler introduction to college life, to give students essential information for their future academic and personal success, and to join content and process- specifically the process of creating essential connections between students, faculty, and the larger campus community. (p.26)

Chickering's seven vectors of college student development are related to the purposes of the freshman seminar. Receiving information that is related to academic and personal success in the freshman seminar promotes competence in intellectual endeavors, provides the means to manage emotions in an effective manner, and encourages autonomy. The connections that are created with other students, faculty, and the college community foster positive inter-personal relationships, identity formation, sense of purpose, and integrity. If a college can provide a sense of community for its students then it creates a culture in which students will find the support and challenge required for success. The freshman seminar was developed to build the foundation for that culture, and to provide the resources that students need to be successful in their first year of college.

Theoretical Rationale

Cognitive Developmental Theory

Knefelkamp, Widick, and Parker (1978), in discussing the relation of theories of college student development to practice, stated: "Theories have become sources of awareness to us, ways of organizing our thinking about students, suggestions of areas for exploration, and keys to insights about possible courses of action" (p.xiv). Cognitive developmental theory presents a model for college student development that describes how students think, and what shifts in

thinking will occur. There are numerous theoretical models for describing cognitive development but they share central assumptions concerning thought processes and behavior. Those assumptions are:

1. There is a human motivation towards competence and mastery which is intrinsic.
2. Cognitive development occurs in stages, and each stage represents the individual's current style of organizing the thought processes.
3. Stage growth is a qualitative rather than a quantitative change.
4. Stage growth occurs in a hierarchical and sequential manner.
5. Stage growth occurs in one direction and is irreversible.
6. Development depends on an interaction between the person and the environment.
7. Behavior is related to an individual's level of cognitive complexity.
8. Physiological and psychological changes are involved in cognitive development.
9. Development may occur in specific domains and not in other domains.
10. An individual may function at a level above or below their modal stage of functioning.
11. Cognitive development occurs across cultural settings (McAdams, 1988).

Domains of particular interest to the study of high-risk college students are intellectual and conceptual development.

Intellectual Developmental Theory

Perry (1970) conceptualized the intellectual development of college students as consisting of nine wavelike positions. In the first three positions, students are becoming less dualistic in their thinking, and beginning to acknowledge there may not be right or wrong answers. Students in the next three positions become more at ease with ambiguity and begin thinking about thinking. The last three

positions are a time of making commitments and taking responsibility. His work is particularly pertinent to high-risk college students because it is essential they move from the dualistic positions into more relativistic positions in order to successfully make the adjustment to college.

Jean Piaget was Perry's (1970) major source in the conceptual origins of his theory. Piaget (Phillips, 1981) theorized that there are four developmental levels: sensorimotor, preoperational, concrete operations, and formal operations. The sensorimotor is based on experiences gained through the senses and lasts from birth to around two years of age. The preoperational stage is from two to seven years and the child discovers the environment and plays imaginatively. The third stage, concrete operational, is from seven to twelve years and the child only deals with facts and tests the environment in a concrete manner. The formal operational stage begins around twelve years of age and it is when abstract thinking begins. Much like Piaget, Perry used the concepts of assimilation of experience and accommodation of structure to explain intellectual development. Both depended on self-report and made generalizations about development from a homogeneous population. Perry studied the level of formal operations which became an extension of Piaget's work because Piaget observed and interviewed children and adolescents while Perry interviewed college students. Perry suggested his work added an advanced section to Piaget's theory but recognized that the second half of his scheme is qualitatively different.

Conceptual Developmental Theory

Hunt (1975) described conceptual level as a combination of cognitive complexity and interpersonal maturity (p.218). There are three levels of conceptual complexity and an individual at the lowest level of conceptual development requires a great deal of structure in the learning environment, functions in a concrete manner, and is less able to adapt to changing situations. At

the highest level an individual thinks in a more complex manner, requires less structure, and is more capable of self-responsibility. High-risk college students may be less able to adapt to changing situations, so assisting them in shifting to a higher level of cognitive complexity may also assist them in being successful and remaining in college.

Hunt (1975) described the shifts in conceptual level as, "increasing conceptual complexity, increasing interpersonal maturity, and increasing understanding of oneself and others" (p.222). A college student who is making the shifts in conceptual complexity is also developing in Chickering's (1969) vectors of autonomy, identity, and interpersonal relationships.

An Overview

Purpose of the Study

This study explored the cognitive developmental growth of high-risk college students in a study skills course. There is a selected review of the literature concerning the development of college students, a synopsis of the instruments used to measure their developmental growth, an explanation of the intervention, and a critique of the weaknesses of the study.

Definition of Terms

Intellectual Development: Intellectual development was defined by students' scores on the Learning Environment Preferences (LEP) (Moore, 1989). The LEP measured positions two through five of Perry's scheme of intellectual development. Position one was inferred by Perry (1970) and was not included in this instrument; the higher positions (six through nine) are assessed by interviews.

Conceptual Development: Conceptual development was defined by students' scores on the Paragraph Completion Method (PCM) (Hunt, Butler, Noy, & Rosser, 1978). The PCM measured conceptual level based on the conceptual

development theory of Harvey, Hunt, and Schroder (1961) which explored how a person thinks.

Deliberate Psychological Education: Deliberate Psychological Education (DPE) refers to a curriculum based on the work of Mosher and Sprinthall (1971) that promotes personal and psychological growth (p.12).

Study Skills: The study skills were assessed by the Survey of Study Habits and Attitudes (SSHA) (Brown & Holtzman, 1967).

Research Hypotheses

This study assessed the intellectual and conceptual development of high-risk college students as a result of a DPE intervention. The students in the intervention group were expected to have higher mean scores on the posttests of the LEP and PCM than the comparison group that did not receive the intervention. Both groups were expected to have higher scores on the SSHA since both would be taking the study skills course.

Sample and Data Gathering

Students in two sections of College Studies 101 which were taught at Christopher Newport University during Fall 1997 comprised the intervention and comparison groups. Both groups were pretested at the beginning of the semester and posttested at the end of the semester, and demographic data was collected.

Limitations

The major limitation to the study was the small, non-random sample of students. Traditionally, there were not been a large number of students taking this course, and students were self-selected into the two sections which impacted internal and external validity. Other threats to validity are discussed in Chapter Three.

Summary

This chapter provided a broad overview of college student development and issues facing high-risk college students. Included in the chapter was a discussion of intellectual and conceptual development, and a rationale for using these theories in relation to college student development. The research design was outlined which provided definitions of terms, a research hypothesis, and limitations of this study.

CHAPTER TWO

A Selected Review of the Literature

College Student Development

Sanford (1967) believed that colleges should provide an environment where students are challenged but are also supported, and that encourages them to be able to deal with more complexity, which is the goal of development. Chickering (1974) stated college attendance promotes development that is maintained after a student leaves college. The longer a student stays in college, the greater the development (p.322). Astin (1977) agreed that college attendance fosters positive change in students in intellectual and interpersonal competence (p.212).

Strange (1994) articulated fourteen propositions that have evolved since the earliest researchers and practitioners began exploring college student development. These propositions encompass the development of college students, the impact of the educational environment, and the person-environment interaction. Proposition one states, "students differ in age-related developmental tasks that offer important agendas for 'teachable moments' in their lives" (p.402). In order for development to occur the learning task must be relevant to the person's life and applicable to current experiences. Educators must make connections between what is being taught and the developmental tasks students are facing, and students should be encouraged to make those connections themselves. Acknowledging that there may not be answers and helping to frame appropriate questions for students in transitional phases is what should be provided at this time, and enhancing commitments during stable periods is another function of education.

Proposition two states, "students differ in how they construct and interpret their experiences, and such differences offer important guides for structuring the education process" (Strange, 1994, p.402). The author points out that it is

essential to recognize how students make meaning of their experiences and provide learning tasks that are appropriate to their level of cognitive development. Students in the earlier stages thrive in environments that are highly structured while students in later stages of development can be more self-directed. In proposition three he states, "students differ in the styles with which they approach and resolve challenges of learning, growth and development, and such differences are important for understanding how and why students function in characteristic manners" (p. 403). This means that as students mature they develop patterns in how they approach the world and it is essential for educators and students to have an awareness of those patterns in order to utilize the strengths the students possess.

Proposition four states, "students differ in the resolution of tasks of individuation according to their gender, culture-ethnicity, and sexual orientation; such differences offer important contexts for understanding the challenges students face in their search for personal identity" (p.404). This recognizes the cultural, ethnic, and gender-based differences that have an impact on college student development, and expects educators to recognize the inherent difficulty for students who are not members of the dominant culture. The college experience provides opportunities for students to develop an identity but that process can be particularly challenging for students who are members of a minority culture that has norms and ways of making meaning that do not match the majority culture.

The first four propositions focus on answering the question of who the college student is, while the next five attempt to explain how development occurs. Proposition five states: "development occurs as individuals reach points of readiness and respond to timely and appropriate learning experiences" (p.404). This proposition points out the importance of timing in educational experiences.

Students will not be motivated to pursue topics that are of no interest if those topics relate to developmental issues that they have not yet had to confront. When the material being taught is connected to the developmental tasks being faced then students are more likely to pursue the information and be motivated to participate in the learning.

The sixth proposition states, "development occurs as individuals respond to novel situations and tasks that challenge their current level or capacity" (Strange, 1994, p. 405). Students prefer experiences that are familiar and comfortable but those are not the ones that provide the optimum opportunities for growth. The disequilibrium that accompanies new experiences also provides the framework for those new experiences to be growth enhancing. In proposition seven, "development occurs as individuals evaluate a learning task to be sufficiently challenging to warrant change and sufficiently supportive to risk an unknown result" (p. 405), the author is further advocating the dissonance that is essential to the growth process. Students must believe they have the capacity to make the changes to learn the new tasks, and be given enough encouragement so that they are willing to risk failure. There must be enough support in the learning environment that students can handle the dissonance that accompanies new tasks. Proposition eight states, "development proceeds through qualitative and cyclical changes of increasing complexity" (p.406). This is one of the underpinnings of cognitive developmental theory, which is that development occurs in hierarchical sequences that are qualitatively different from those that preceded them. The ninth proposition, "development occurs as an interactive and dynamic process between persons and their environments" (p.406), is a reiteration of Lewin's (in Hunt, 1975) idea that behavior is a function of the person-environment interaction.

The next four propositions address the issue of how college environments affect student development. The tenth proposition is "educational environments restrict and enable individuals by the form and function of their natural and synthetic physical characteristics" (Strange, 1994, p.407). This suggests that the location of the college campus and the atmosphere of the setting have an impact on students' development. Some students will thrive at a large, urban campus while others need to be at a small college to reach their fullest potential. The opportunities, or lack of them, to participate in various campus activities impacts the interactions students have with others and the environment. The eleventh proposition, "educational environments exert a conforming influence through the collective, dominant characteristics of those who inhabit them" (p.407) means that colleges and universities have particular attributes based on the majority of the inhabitants of the environment having those attributes. Students who have the same or similar attributes will find the college or university a better fit for themselves, while students who do not fit or have the same characteristics will most likely feel like outsiders.

Proposition twelve states, "educational environments, as purposeful and goal directed settings, enable or restrict behavior by how they are organized" (Strange, 1994, p. 408). Systems generally organize themselves to be typically dynamic or static, and while most systems are both, the college or university environment will lean toward one or the other. The dynamic systems that respond to change are more likely to meet students' needs for challenge and support that encourage development. In proposition thirteen, "the effects of educational environments are a function of how members perceive and evaluate them" (p. 408), suggests students' perceptions of the environment have an effect on whether or not students will be successful or happy in that setting. When students have positive perceptions of their college or university setting they are more likely to find

satisfaction there, are more likely to stay in the environment and participate in growth inducing experiences.

The last proposition was designed to explain toward what ends development in college should be directed (Strange, 1994). Proposition fourteen states, "educational systems are embedded in various contexts of select values and assumptions that shape their expectations, processes, and outcomes" (p. 409). Higher education in this country reflects the values of the dominant culture (McEwen, Roper, Bryant, & Langa, 1990), and Strange suggests educators must have an awareness of their own values that impact the environment. Students who are not members of the dominant culture may have values that are incongruent with the college or university environment, and educators must be open to new ways of advancing the curriculum to encompass all students.

Strange (1994) constructed these propositions in a tentative manner and they are designed to challenge practitioners to consider their use in terms of educational policy and practice. King (1994) agrees that the study of college student development is evolving and developing much like college students. She does encourage educators to use the propositions outlined by Strange as questions that guide practice and decision making.

The Freshman Seminar

Murphy (1989) suggested the first year of college is the most challenging period of development, requiring a separation from parents, responsibility in making decisions, and learning to relate to diverse people. For high-risk students those adjustments are exacerbated by the very reasons that make them "high-risk." The term "ecological transition," first coined by Bronfenbrenner and cited in Banning (1989), is leaving one environment and moving into a new environment, which requires a change in setting and a change in role. If the two

environments are decidedly different, the student will feel more stress and possibly dropout or fail.

Levitz & Noel (1989) stated the most critical period for freshmen is the first two to six weeks, and one third leave before the second year. They cited unrealistic expectations, academic under-preparedness, adjustment difficulties, and lack of career goals as the major reasons for students to leave college. Using retention research, they suggested students return for the second year if they have been encouraged to learn about themselves and their environment, have developed study skills, and have found the resources to promote adjustment.

Clarke (1992) found that students who participated in a study skills course that focused on self-management and problem-solving skills in addition to study skills were better able to make the transition from high school to college. Students who recognize the role they play in their own success are more likely to find ways to be successful.

The following studies were chosen for review because they described the positive effects freshman seminars can have on students' retention, academic success, and adjustment. A comprehensive study by Fidler & Hunter (1989) looked at the research concerning the effectiveness of the freshman seminar and compiled information on the following variables: retention, academic performance, knowledge and utilization of student services, personality development, and freshman sub-populations. The University of South Carolina conducted research on retention rates since 1972 and found students taking the freshman seminar had a higher sophomore return rate than non-participants, with a statistically significant difference for ten of those years (p.217). Another outcome found in these studies was that participants in freshman seminars had a significantly higher graduation rate (56.2 percent) than non-participants (50.7 percent; z-score; $p<.01$) (p.218).

Sacramento City College compared three types of programs: a freshman seminar, a four hour orientation, and a one hour orientation. They formed matched groups on age, sex, and reading and writing placement, and found the freshman seminar to be most effective in retaining students. The percentage of returning students was 91.4 for the freshman seminar, 81.7 for the four hour program, and 78.8 for the one hour program. In addition, those students in the freshman seminar completed nearly three more semesters of course work (pp. 218-219). At Georgia College, the freshman seminars in Fall 1981 and Fall 1982 showed significantly higher retention after three quarters and after six quarters. Columbus College had a 58 percent retention rate for freshman seminar students as opposed to 48 percent for non-participants (p. 219).

While some colleges did not report higher retention rates for participants in the seminar, they found a "compensatory effect" (Fidler & Hunter, 1989, p. 219), which indicated that high-risk students in the seminar returned at the same rate as non-participants. Therefore, the course was considered to be supportive of retention. Clarion University of Pennsylvania reported three semester retention rates and grades were similar for participants and non-participants, but the non-participant comparison group began their college career with a higher Scholastic Aptitude Test (SAT) mean. Another reason retention rates may not be higher for freshman seminar students is that in a college with an above average retention rate overall, differences are less likely to be statistically significant.

Boudreau and Kromrey (1994) conducted a study that matched participant and non-participants in a freshman seminar on race, sex, high school grade point average, admission test scores, admission status, and major. The sample consisted of 1,286 students who enrolled in the university in Fall 1987 through 1990. The retention rates were computed based on Spring 1991 registrations. The freshman seminar participants who entered in Fall 1989 and Fall 1990 had significantly

higher retention rates (77.3% and 95.3%) than non-participants (63.6% and 88.9%) (p.447). The cohorts that began in the Fall 1987 and Fall 1988 did not show statistical significance in the retention rates of participants, but the differences from non-participants was in the positive direction. This study is particularly interesting because it was a longitudinal study which investigated retention rates beyond the first semester after the completion of a freshman seminar.

Generally, the research indicated that the freshman seminar is not a cause of retention but there is a positive relationship between a student's desire and ability to return to a particular college and that student's participation in a freshman seminar. This type of course may assist students in finding the appropriate resources on campus, reduce stress, and foster relationships between students and professors that encourage students to return.

Fidler & Hunter (1989) also found generally improved academic performance for students who had taken freshman seminars. At Sacramento City College the seminar students had an average of .71 grade points higher than the students in the four hour or one hour orientations. They also achieved 2.76 more semester units of academic credit than non-participants. For three years, the State University of New York at Cortland matched a comparison group on high school average, SAT verbal scores, and declared major. The seminar students had a higher GPA (t-test; $p<.05$ for 1983, $p<.01$ for 1984 & 1985) (p.222) but the results were reported after only one semester so it is unknown if they were maintained.

The University of South Carolina reported seminar students' GPA to be similar to non-participants nearly every year of the study even though the seminar students began college with lower high school rank and SAT scores. There were similar results reported at Georgia College and Clarion University of Pennsylvania. The University of North Carolina at Charlotte reported higher

grades for seminar students (ANOVA; $p<.05$) (p.223). Indiana University of Pennsylvania conducted a study at two branch campuses which included 183 high-risk students. They showed higher mean quality point averages after three years for participants than for non-participants who were matched using predicted quality point averages. These studies suggest academic performance is affected by the freshman seminar and that the gains are maintained beyond the first year.

Boudreau and Kromrey (1994) compared the academic performance of four cohorts of students, half of whom participated in a freshman seminar and have of whom did not. The participants during Fall 1998 had statistically significant higher academic achievement than non-participants. In three other cohorts of students there were no significant differences between the participant and non-participant groups (p.447).

One of the objectives of a freshman seminar is to acquaint students with the resources available on campus. Fidler & Hunter (1989) reported on a study done at Brigham Young University that found students more likely to be aware of and use campus services after taking a freshman seminar (analysis of covariance; $p<.01$ career planning, $p<.05$ academic advising, $p<.10$ library and study skills services) (p.224). At the University of South Carolina, students were more likely to use student services and also participated in extracurricular activities at a rate that exceeded non-participants. Similar findings were reported at Marietta College, Glassboro State College, Columbus College, Bowling Green State University, and Clarion University of Pennsylvania.

The studies reported on by Fidler and Hunter (1989) evaluated personality variables such as locus of control, self-discipline, active-social, and self-esteem. The results at Clarion University of Pennsylvania showed freshman seminars can be helpful in reducing apprehension and in increasing self-discipline, but the other studies did not show significant results for personality development. Too

few studies have been done on subgroups of freshman seminar students, such as African-Americans, older students, etc. for Fidler & Hunter (1989) to report any trends regarding the impact of the courses. While the research does suggest freshman seminars are helpful to subgroups, there are not enough studies to make a generalization.

Switzer, McGovern, & Robbins (1991) studied 113 freshman to evaluate their early adjustment to college life. The students volunteered to participate in the study and all were in the freshman seminar. The authors looked at immediate goals which were related to students' satisfaction with the course and its content. The assumption was that the accomplishment or satisfaction of immediate goals leads to accomplishment of longer range goals. Immediate outcomes were assessed by a Course Satisfaction Rating and the Classroom Environment Scale and explored how the participants perceived the experience of the freshman seminar. Intermediate goals were to evaluate the extent of change of participants' social adjustment and their knowledge of resources during the seminar period. The instruments used were the Campus Information Survey and the Student Adjustment to College Questionnaire. The final goal was to see if a relationship existed between participation in a freshman seminar and students' adjustment at the end of the first semester. First semester GPA, academic credits completed, and registration for the spring semester were used as outcome measures.

The class met for one hour per week, for ten weeks, and students received one credit. The intervention consisted of lectures, small group discussions, individual projects, and opportunities to learn about higher education in a supportive environment. The initial outcomes showed moderate satisfaction with the seminar, and students found the classroom discussions useful and relevant with the practical information about the university to be most helpful. T-test comparisons of the intermediate measures found statistical significance for both

information and social adjustment gains made during the course of the seminar. The mean GPA at the end of the seminar was 2.51, the mean for the academic credits completed was 12.85, and all of the students registered for the next semester (p.487). This study supported the concept of freshman seminars or study skills courses. Unfortunately, it was a one semester study and did not track students further into their college careers, but the preliminary findings are encouraging.

Kulik, Kulik, and Shwalb (1983) did a meta-analysis of the findings of studies done on college programs for high-risk students. The evaluation of 60 studies showed positive effects for students taking these courses, and the two areas most frequently reported on were achievement and persistence in college. Fifty seven of the studies reported on grade point average (GPA) and in forty four of them, the GPAs were higher for students in the special programs. In 13 of the studies the GPAs were higher for the control groups. If there were no effect on students in the special programs then half the results would have been higher for the students in the programs and half would have been higher for the control groups. They confidently concluded the programs had a beneficial effect on students' GPA (p.401).

Thirty of the studies analyzed by Kulik, Kulik, and Schwalb (1983) explored the effect of these programs on persistence in college. Twenty one of the studies reported higher persistence rates for students in the special programs, and five studies reported higher persistence for the control groups, and four studies had identical persistence rates (p.406).

Interesting findings from the meta-analysis that was done by Kulik, Kulik, and Schwalb (1983) include the stronger effects of new programs and the weaker effects of more institutionalized programs. They suggest that experience may cause the dissipation of enthusiasm and, possibly, funding for these programs.

They also found that the programs for high-risk students were less effective in community colleges, and they suggested that may be due to the fact that community colleges serve non-traditional students. They also cautioned that meta-analyses frequently present an optimistic view of the results of research since studies with little or no effect are relegated to the "file drawer" (p.409).

College Student Development and Perry's Scheme

Perry (1970) outlines nine positions concerning the way a person perceives knowledge and learning. While his positions are hierarchical and sequential, he says growth is rarely linear but more "wavelike" (p.177), with the flow being a moving forward in development and the ebb being a time of absorbing the new way of being and gathering strength to move forward again.

A student at Position 1 perceives knowledge as absolute truth delivered by an authority. There are right answers and wrong answers in this dualistic framework. A Position 2 student is beginning to understand there may be uncertainty or ambiguity but that comes from unqualified authorities or is a way for authority to make the student find the answer. At Position 3 the student realizes the uncertainty is only temporary because the authority has not yet found the answer. These three positions might be three small waves grouped together under "the modifying of dualism" (Perry, 1970, p.58).

The next three positions are similarly grouped together and called "the realizing of relativism" by Perry (1970, p.58). In Position 4, a student recognizes there is uncertainty and may agree to think relativistically to satisfy authority, or the student may believe that if no one really knows the truth then all opinions are valid. A student in Position 5 is making the shift from dualism to relativism. In previous positions dualism was the norm and relativism occurred in special cases, whereas relativism becomes the norm and dualism only occurs in special cases.

Position 6 continues the trend and the student acknowledges that one lives in a relativistic world and needs to learn how to commit to something in that world.

The last three positions are called "the evolving of commitments" by Perry (1970, p.58) and a selection of an area in which to make a commitment such as a career occurs in Position 7. Position 8 is the time when the student recognizes the responsibility inherent in commitment and Position 9 is when the student accepts responsibilities as part of the process of commitment and the unfolding of Self.

Perry's work with college students makes this research relevant to research with high-risk students, although this work was done with male, Harvard undergraduates, most of whom were probably not considered high-risk. The longitudinal study (1954 to 1963) was done using interviews and there was found to be high interrater reliability (.815 to .978) (Perry, 1970, p.12). Understanding the stages of college student development and realizing students at various positions perceive knowledge and learning differently is essential to providing an effective intervention (Widick, 1977). Without this theory as a framework, a professor could challenge students at a level that may hinder the growth process. Widick suggested that overwhelmed students can become fixated in dualistic thinking and not progress to a more "examined life" (p.36); therefore, while there must be challenge or disequilibrium for growth to occur, it cannot be more than a student can manage cognitively.

Stephenson and Hunt (1977) conducted a study to see if a curriculum based on developmental theory would produce upward movement along Perry's positions. Two classes of freshmen (21 each) in a Social Science course called "Themes in Human Identity" (p.40) were compared to a class of freshmen (15) in a Humanities course and a class of freshmen (19) in an English course. Pre- and posttesting was done using the Defining Issues Test (DIT) and the KneWi which measures development on Perry's scale. The KneWi has ten sentence stems and

two paragraph completion items, and the DIT is an objective test evaluating moral judgment. The students in the Social Science course were taught with the assumption that they were in the dualistic positions, and therefore needed challenge but also encouragement to cope with the challenge. The challenges included reading literature with paradox, role-playing, and interviewing, while the support included individual conferences with professors, well-defined assignments, and a structured classroom. The professors used books and writings in which the themes and content were related to one's identity in terms of self and others. In the first part of the course students explored the nature of man in connection with others and in the second part in connection with work and career.

Change on the Perry scale occurred in just eleven weeks for both experimental groups. Both Social Science classes showed an average stage movement of .85, while the Humanities class showed an average stage movement of .42 and the English class .12 (p.41). The data concerning moral judgment was not reported. The study is important because it shows students can move along the Perry scale with the appropriate intervention that includes both challenge and support. The unanswered questions are whether or not the gains were maintained beyond the end of the semester, or how all of the groups compared in their intellectual development at the end of college.

Baxter Magolda's (1990) study was designed to explore gender differences in development during the freshman year. She found a growth in development using Perry's scheme and this discussion is related to that aspect of her study. There were 101 students participating in this study (50 males and 51 females) who were randomly selected from the freshman population. The students shared similar academic ability and the mean age was 18. The instruments used were a semistructured interview and the Measure of Epistemological Reflection (MER). All of the students completed the instruments at the beginning and 95 returned for

the interview at the end of the second year. Seventy-seven returned the MER the second year. The MER requires short essay questions within six domains: "the role of the learner in the learning environment, the role of the instructor, the role of peers in learning, evaluation of learning, decision making in educational contexts, and the nature of knowledge" (p. 267). Interrater reliability for the MER is .80 and validity shows a .93 correlation with interviews.

The data suggest growth occurred during the freshman year, and in particular, there was growth more frequently for Position 2 students than for Position 3 students. Students who made a position move experienced more faculty interaction, more class discussions, and more opportunities to become involved in the student culture. This study is important because it shows Perry's scheme is useful to conceptualize students' development and development can occur in the right environment. Further, aspects of the freshman seminar such as small group discussions, student-faculty interactions, and becoming aware of and utilizing campus resources are cited as an important part of creating that environment.

College Student Development and Conceptual Level

Harvey, Hunt, and Schroder (1961) described conceptual systems theory as an interaction between the person and the environment that impacts a person's conceptual structure. They define a conceptual system as "a schema that provides the basis by which the individual relates to the environmental events he experiences" (p.244-45). Hunt (1975) stated, "Behavior is a function of the Person and the Environment" and "in the classroom the Behavior (learning) would be seen as jointly determined by P (kind of student) and E (way of teaching)" (p. 217). He suggested that knowing the Conceptual Level of the student provides a more favorable interaction with the environment. The Conceptual Level (CL) is an indication of a person's ability to differentiate, discriminate, integrate, and be self-responsible.

A low CL person is more likely to need a highly structured environment, tends to think in concrete terms, and sees the world as dualistic. A high CL person needs little structure, can think in abstract terms, and takes personal responsibility. There are four levels of CL, but it is essentially a continuum of cognitive complexity from concrete to abstract:

Stage - 0.0: A person who is unsocialized and thinks concretely and simplistically. The individual at this level cannot tolerate ambiguity.

Stage - 1.0: A person thinks in dualistic terms and behaves in socially acceptable ways.

Stage - 2.0: A person begins to question, becomes more open to and interested in other's ideas. This person is striving for independence and is capable of tolerating ambiguity.

Stage - 3.0: A person understands there is an inter-dependence between the self and the environment, and has greater understanding of the self. This person avoids dependence and has a selective openness to external imposition. (Khalili & Hood, 1983, p.389).

Khalili & Hood (1983) conducted a study using the Paragraph Completion Method (PCM) administered to 169 freshmen at a Mid-Western University. They did follow-up studies of these students when they were second semester freshmen and when they were seniors. Thirty eight students participated in the second testing and 77 participated in the third testing. A demographic questionnaire was also administered at the last testing.

The results showed a statistically significant increase in CL over the course of four years. The average growth was one half of a conceptual level. At the beginning of the study females scored significantly higher than males: one eighth of a CL stage higher, but there were no significant differences in either of the

other two testings. Conceptual level scores were not different for those students who stayed in college as compared to those who left; apparently, CL level during the freshman year had no relationship to staying in college. There was little significance in the demographic variables measured at the final testing. Business majors had the smallest amount of change in CL and Humanities majors had the largest changes but the numbers of the students in those majors were too small to reach significance (Khalili & Hood, 1983, pp. 390-392).

Khalili & Hood found students entering college to be halfway between the first and second stages of CL on average and they found a movement of approximately one quarter of a stage during the first year and another one quarter stage movement by the end of the senior year (p.393). Some students dropped in CL scores and others did not change and the researchers were unable to find a reason for this phenomenon.

This study supported the contention that students need structure at the beginning of their college experience. The theory suggests students at higher CL levels can function in high structure environments but students at low CL levels cannot function in low structure environments (Khalili & Hood, 1983); therefore to reach the highest number of students an intervention must be highly structured at the beginning.

Paisley, Gerler, & Sprinthall (1990) reported on a study done with 52 ninth graders using the DIT and the PCM. The importance of the findings of this study for this research is the focus on drug abuse prevention, an issue relevant to college student experience. Two experimental groups with 14 students each and two control groups were pre- and posttested and kept journals of their experiences. The treatment consisted of one hour sessions on 12 consecutive days and consisted of discussing various dilemmas, thoughts, and feelings concerning

drugs. The students also shared their journal entries and participated in smaller group and paired discussions.

The authors reported a significant mean gain in principled reasoning for experimental group 1 of 11.41 percent and for experimental group 2 of 9.1 percent ($F=11.9$, $p<.05$). Control groups showed a mean gain of 0.28 percent (Paisley, Gerler, & Sprinthall, 1990, p.119). The experimental groups did not show a statistically significant gain in Conceptual Level.

This was a small sample measured after a short period of time and a younger population than the focus of this research, but as stated earlier, the drug dilemma discussion is relevant to freshman seminars. Therefore, the findings of movement in moral reasoning is hopeful for this kind of intervention for an older population, but the fact that these students did not move in CL points out a shortcoming in measuring CL in increments of less than a year.

Bruch, Juster, and Heisler (1982) conducted a study with 48 paid volunteer students in an introductory psychology course. There were 24 males and 24 females who were evenly divided into high Cognitive Complexity (CC) groups and low CC groups based on the results of the PCM. The students were taught to imagine situations, then to project themselves into those scenes while listening to descriptions of events. After practicing, they were given six situations to imagine themselves in and then asked questions about the experience; there was a neutral situation, two academic failure situations, and three situations of social rejection. Students were also give two instruments: the Multiple Adjective Affect Checklist (MAACL) and an attribution questionnaire which explored internal and external causes of the outcome of each situation.

The researchers found high CC students had more appropriate thought content and placed more emphasis on internal causes to the situations. Low CC students had more dysfunctional thinking and more negative affect when thinking about

the situations. They concluded there may be a relationship between level of conceptual complexity and negative responses to experiences in college students. This study is not generalizable due to the small, select, and non-random sample but it is useful because it does support the idea that growth in conceptual complexity is desirable for college students' success.

Miller (1981) summarized over 60 studies involving students and adults that explored developmental growth based on Hunt's conceptual systems theory. Miller found that individuals at higher levels of conceptual complexity exhibited less prejudice, greater empathy, more internal locus of control, more autonomy, and greater information processing skills. This analysis is important because it promotes the idea that higher is better. A person at higher levels of cognitive complexity is better able to adapt to and function in an ever-changing society.

College students who can move along the continuum of cognitive complexity would be developing along Chickering's (1969) vectors as well. Those students who become less prejudiced and more empathic can enhance their interpersonal relationships, and greater information processing skills may lead to developing competence. Autonomy has been stated as being one of the vectors and an internal locus of control aids students in developing a sense of self or identity.

Development of Study Skills

Study skills are generally defined as the ability to take sufficient notes during a lecture, memorization techniques, effective test-taking strategies, an ability to read and retain information, and the ability to write coherently (El-Hindi & Childers, 1996). Many high-risk college students have deficits in those areas and need assistance in order to be successful college students.

Tarpey and Harris (1979) researched the effects of a study skills course on students using the Survey of Study Habits and Attitudes (SSHA) and grade point average (GPA). Students were assigned to one of five groups randomly and there

were 91 participants. Two groups totaling 29 participants received communications skills training and the basic course. Two other groups with 31 participants received the basic course and one group consisting of 31 students received no treatment. The students who received no treatment were on a wait list and expected to be in the class the next semester. The course met for a two hour period for ten weeks and the SSHA was administered the week before the class began and the week after it ended.

The four groups of students who received the basic study skills course had significantly higher mean GPAs (3.4880 and 3.2109) at the end of the ten week period than the control group (2.6135) (Tarpey & Harris, 1979, p.65). The experimental groups also had higher mean scores on the SSHA ($t=-3.46$ and -3.58, $p<.05$) than the control group ($t=-3.21$, $p<.05$) (p.65), although there was no statistical significance. This study provides a starting point to look at the effects of study skills courses on high-risk college students.

Robyak and Downey (1979) studied 65 students enrolled in a study skills course to assess the frequency of study skills use of those students. Twenty seven students were classified as underachievers and 38 were classified as non-underachievers based on their grade point average. The students were given the Survey of Study Habits and Attitudes (SSHA) (Brown & Holtzman, 1967) at the beginning of the course and the mean scores of the two groups were compared. There were no differences in the two groups' SSHA scores. Unfortunately, the students were not tested at the end of the course to see if there was a change in study habits and attitudes. The importance of this research is to suggest there may be no discernible differences in the study habits of successful and non-successful students. As suggested earlier, it may be that interpersonal relationships and availability of resources are important factors in the success of college students.

Eison and Pollio (1985) used the SSHA and other instruments to sort the factors involved in students' learning. This study was not specifically about high-risk college students but it is helpful because of the use of the SSHA and the results of the factorial analysis. There were 214 students participating in this study who took six instruments that allowed the researchers to explore students' learning styles. The SSHA became a part of factor 1 which represented educational attitudes and behaviors and was called the "Learning Skills factor" (p.440). They suggested that students who were high on factor one had effective study habits and were probably successful. Those students who were low on that factor would probably be helped by taking a study skills course. The researchers suggested continued use of the SSHA to provide information about college students that assists instructors in teaching.

Elliott, Godshall, Shrout, and Witty (1990) assessed problem-solving ability in relation to study habits and found a correlation between the students' ability to solve problems and their ability to study effectively ($F(5,57)=11.02$, $p<.0001$) (p.205). They state, "effective problem-solvers possess and generate more adaptive, goal-directed solutions to problems encountered in their environment than ineffective problem solvers..." (p.206). This study supports the idea that, while study skills are an important element in assisting high-risk college students to become successful, there are other elements in the learning that is required to achieve the goal of successful college student.

Terenzini, Springer, Pascarella, and Nora (1993) did a one year longitudinal pilot study to look at out-of-class experiences that may impact college students. This was done at a large mid-western research university, and most of the students who were involved in the study did not live on campus. Six hundred students were randomly selected from 1,150 volunteers and 327 (54.5%) actually participated with 210 participating in the follow-up data collection at the end of

their first year of college (p.4). Those students were not representative of the entire freshman class as they were more likely to be Caucasian and had higher academic aptitude as reported on standardized tests than the average freshman at that university. The instruments used were the Collegiate Assessment of Academic Proficiency (CAAP) which is a multiple choice test that assesses reading comprehension, mathematics, science reasoning, and critical thinking, and an instrument that was designed for the study that gathered demographic, family, and educational information (p.4).

A hierarchical regression model was used to estimate the contributions of out-of-class experiences to critical thinking skills as measured by the CAAP. The explained variance was 30.1% of the total variance when students' precollege critical thinking skills were controlled, and 52% of the total variance when that variable was included. An additional 7% to 17% of the variance was explained by other college experiences, and students out-of-class experiences contributed 2.9% to the gains and their class-related experiences contributed 2.5% to the gains (Terenzini et al., 1993, p.7).

There are a number of limitations to this study that include the small sample size and the number of commuter students. This is not generalizable to another university but it reflects the realities of doing research in the field of higher education. The longitudinal nature of this pilot study provides a framework for further research. The findings suggest that both in-class and out-of-class experiences impact the development of college students' critical thinking skills and that deserves replication at other colleges and universities.

Deliberate Psychological Education

Sprinthall (1978) stated developmental growth requires particular experiences to occur at particular times. Beginning college is an optimum opportunity for developmental growth to occur and a Deliberate Psychological Education Model

(DPE) can assist students in making the transition to college. A DPE is an instructional format that is specifically designed to promote psychological growth and development. It consists of five parts: role-taking, reflection, balance, continuity, and support and challenge (Reiman, 1995). Beginning college, by its very nature, is a new role-taking experience. The reflection is accomplished through the use of journals or writing assignments in class. In order to promote growth, reflection needs to be balanced with the role-taking with little time lag between the two. The continuity requires meeting once or twice a week for one semester or more. The challenge is provided by a significant role-taking experience and making the adjustment to college life which requires learning new skills and adopting different ways of thinking. Support is provided by the instructor in responses to each journal or weekly writing assignment, and by small group discussions in the classroom. Baxter Magolda (1995) states that "peer interactions offer students opportunities to explore their values, compare them with other ideas, and make decisions about values to adopt as their own." (p.214)

Reiman (1995) believed the most important aspect of the DPE is the reflection. However, it is the most challenging for instructors. Mann (1994) found students who scored low in Cognitive Complexity Index on the LEP made evaluative statements and could not identify feelings in their journals, while students who had high scores had an awareness of relationships and wrote about feelings. The response for all students from the instructor was to share feelings, give frequent encouragement, ask questions, and explain cause and effect between strategies and outcomes (Mann, 1994, p.169).

Foster and McAdams (1995) used the DPE in counselor supervision development and found the curriculum useful in promoting moral development. The study consisted of 35 counseling supervisors receiving the treatment; there

was no comparison group but they found statistical significance on the pretest to posttest mean gains on the DIT (45.80 to 50.71, t=2.19, p<.05) (p.13).

McAdams & Foster (in press) conducted a study with 72 high-risk students in two treatment groups and two control groups. All of the students participated in freshman seminars and the intervention for the treatment groups was a DPE. The authors used the Paragraph Completion Method (PCM), the Learning Context Questionnaire (LCQ), and the Survey of Study Habits and Attitudes (SSHA). The experimental groups had positive and statistically significant changes on the PCM (t = 2.129, p<.05) (p.12), and the control groups had a slight positive change. On the LCQ, the experimental groups showed gains but they were not statistically significant, while the control groups showed a slight negative change. The SSHA results showed a positive and statistically significant change for the experimental groups on the SH (study habits) scale (t = 2.132, p,.05), and a slight positive change for the control groups (p.13). On the SA (study attitudes) scale both groups showed a negative result, with the experimental group showing a greater negative result.

An interesting aspect of this study showed that students in the experimental groups who had higher Conceptual Level (CL) at the beginning of the study did not make the gains that students at lower CL made. McAdams and Foster (in press) suggest that students at lower CL may be more readily affected by the DPE model of instruction. They also point out the problem of assessing students while they are in the throes of disequilibrium caused by the new educational experience and suggest that may account for the lower scores on the study attitudes scale. They made the suggestion that the duration of the DPE be extended to the recommended year-long format to enhance the already promising results.

Terenzini, Springer, Pascarella, and Nora (1993) caution that one semester may be too short a time period for change to occur in college student

development. They also suggest considering other influences that may have an impact on students such as positive interactions with instructors, the amount of student participation, and the amount of student interaction with other students.

Sprinthall and Scott (1989) detected movement in moral development after one semester using the DIT. An experimental group and a comparison group each consisted of 15 high school girls who tutored younger girls in math. The experimental group received instruction and mentoring using a DPE. This study indicated that upward movement is possible in one semester, and is indicative of the possibilities for high-risk students. The authors state:

> Any group of students that has received negative cultural conditioning or been treated less favorably, such as minority, handicapped, or lower socioeconomic status pupils, may well benefit from programs designed to enhance their conceptual complexity and judgment. Such studies and program development are currently absent from the research literature (p.445).

The DPE model seems to be an effective intervention promoting psychological development. Its use with high-risk college students seems particularly apt since they are, by definition, minorities, handicapped, and lower socioeconomic status pupils. Assisting high-risk college students by promoting development through the use of a DPE may be the most important factor that determines their success or failure.

Summary

The preceding review of the literature has demonstrated the need to assist high-risk college students in making the transition to college. Cognitive developmental theory has been used as a framework to understand the development of college students. Specifically, intellectual development theory and conceptual systems theory have been shown to be effective in conceptualizing the developmental needs of college students. The use of a study skills course was

addressed and factors that contribute to the success of students in those courses were considered. The Deliberate Psychological Education model was shown to be an effective tool used to promote development in those domains. It is essential that high-risk students be given the necessary resources for them to succeed in college, and this research attempted to add to the growing body of knowledge that focuses on high-risk college students.

CHAPTER THREE

Design and Methodology

The design and methodology of the study is described in the following sections:

1. Population and Sample
2. Data Gathering
3. Instrumentation
4. Research Design
5. Hypotheses
6. Data Analysis
7. Ethical Considerations

Population and Sample

The target population for this study was high-risk college students in Virginia. The sample was drawn from the accessible population of high-risk college students at Christopher Newport University. The students were enrolled in the course titled College Studies 101.

The students in the intervention group were enrolled in College Studies 101 (02), and the students in the comparison group were enrolled in College Studies 101 (01). Students were not randomly assigned to either section but self-selected which section to take based on the times they were being offered and the students' schedules. At the beginning of the semester 27 students were enrolled in both sections, and at the end 25 students were enrolled in the experimental group and 26 enrolled in the comparison group, with one student in each group dropping the course after the first class meeting but before the second meeting. Another student dropped out of the experimental group after the midterm exam even though she had passed the test. There was no stated reason for her withdrawal.

Data Gathering

The Learning Environment Preferences (LEP), the Paragraph Completion Method (PCM), and the Survey of Study Habits and Attitudes (SSHA) were administered to students in both sections. Students were pretested at the beginning of the semester during the second and third class periods, and posttested at the end of the semester during the second to the last week of classes. Demographic data were collected during the first class period. Participants were informed of the purpose of the study and retained the right to refuse to take the instruments. Students in both sections signed the informed consent forms at the first class.

The intervention was part of the course design and participation and completion of all assignments were mandatory for course credit. All responses and data were maintained in a confidential manner, and instruments were identified by a code chosen by the student to provide anonymity. Results are reported as group means rather than by individual scores to maintain confidentiality.

Instrumentation

To assess Perry's scheme, the Learning Environment Preferences (LEP) (Moore, 1989), an objective measure of intellectual development, was used. The LEP has 60 items that are rated on a four point Likert scale, and constructed to be related to Position 2 through 5 of the Perry scheme. The LEP only assesses the lower portions of the scheme because it is believed the upper portions can only be assessed by interview. Another assumption is that Position 1 does not occur in college students so that position is not assessed by the LEP. That position was "largely hypothetical" (p.506) in Perry's study.

The items cover five domains related to epistemology: "(a) view of knowledge and course content, (b) role of the instructor, (c) role of the student and peers in the classroom, (d) the classroom atmosphere, and (e) the role of evaluation."

(Moore, 1989, p.506) There was one item per domain that sounded complex but was meaningless, which provided a check for students who might have chosen them because they sounded complex. Students rated each item based on its importance to them, then they were asked to rank the three most important statements. The most significant responses made up the Cognitive Complexity Index (CCI), which was a composite of the student's reasoning. The CCI is between 200 and 500 which corresponds to Position 2 through Position 5. Coefficient alpha figures for construct validity are in the .80s and reliability is .72 to .84 (p.50). The instruments were scored by the developer of the instrument and the results mailed to the researcher.

The Paragraph Completion Method (PCM) is a semiprojective measure used to assess conceptual level (Hunt, Butler, Noy, & Rosser, 1977). In order to assess how a person thinks it is necessary to have thought samples. The topics assess how a person handles conflict or uncertainty and how a person thinks about rules and authority (p.2). There were six topics or stems and students were instructed to write at least three sentences on each topic and were given two minutes per stem. The instrument scorer was trained at the Ontario Institute for Studies in Education in 1982 and has subsequently conducted training workshops for scoring the PCM at North Carolina State University. She assigned a number for each of the responses and then added those scores to get a Conceptual Level. The inter-rater coefficient is .86 and test-retest reliability is .67 (p.42).

The Survey of Study Habits and Attitudes (SSHA) is an objective test with 100 items that measures study methods and motivation (Brown & Holtzman, 1967). There are two subscales, Delay Avoidance and Work Methods that are combined to form a score for Study Habits. Two more subscales, Teacher Approval and Education Acceptance are combined for a score for Study Attitudes. The scores for Study Habits and Study Attitudes are added together for a Study Orientation

(SO) score. The SO score was used in the statistical analysis. The SSHA was scored by an independent scorer who placed a stencil over the instrument and counted the marked answers and added them to the appropriate box on the instrument. The validity coefficients have a weighted average of .36 and the correlation between the SO scores and grade point averages are statistically significant and positive. Test-retest reliability is from .85 to .92 (Brown & Holtzman, 1967, p. 23).

Research Design

This study used a quasi-experimental, non-equivalent control group design. The purpose of the study was to provide an intervention for high-risk college students that would aid in their intellectual and conceptual development. The students self-selected into each group and the groups were evenly divided. The intervention group received the DPE as part of the regular course and the other class received the same material but it was presented in a didactic manner.

Hypotheses

1. High-risk college students in the intervention group show higher levels of intellectual development on the posttest as measured by mean scores on the Learning Environment Preferences (Moore, 1989) than the comparison group.

2. High-risk college students in the intervention group show higher levels of cognitive complexity as measured by mean scores on the Paragraph Completion Method (Hunt, Butler, Noy, & Rosser, 1977) than the comparison group.

3. Students in both groups have more effective study attitudes and habits as measured by the Survey of Study Habits and Attitudes (Brown & Holtzman, 1967).

4. The students in the intervention group have a higher retention rate than the students in the comparison group as evidenced by registration for the next semester.

Data Analysis

Mean scores were computed for the LEP, PCM, and SSHA. An independent sample t-test was done for the three measures to be certain the groups were the same at the beginning of the study because the sample was not randomly selected. The two groups were the same at the beginning, therefore a repeated measures multiple analysis of variance was done to test for treatment effects from pretest to posttest of the three measures.

Ethical Considerations

The following precautions were taken to maintain ethical standards:

1. Informed consent was obtained in writing from all participants. They were told the study was to examine the effects of the College Studies 101 course on their psychological growth.
2. Participants were told completion of the instruments was voluntary, however participation in the class was required for course credit.
3. Confidentiality was maintained. Students used special codes that they chose in order to match instruments, but the researcher did not have access to that information.
4. Students were assured that their answers on the instruments would not affect their course grade.

Critique

Internal Validity

This study was conducted on a small sample that became smaller as time progressed. One student in each section dropped the course during the first week. Another student in the experimental group dropped the class after the first week and others failed to complete the course which impacted experimental mortality. Students often skipped class and that made it difficult to posttest many of them, hence the low numbers of complete sets of measurements. Students were not

randomly assigned to groups because they self-selected the course section based on their class schedules and it is difficult to know if this differential selection threatened internal validity. The threat of selection-maturation interaction because of non-traditional age students in the classes was minimal because there was one student in each section that was over the age of twenty. The ages of the students in the two groups were very similar. Diffusion of treatment may have had a large impact on the results because the researcher felt obliged to share materials and resources throughout the semester since the instructor of the comparison group had not taught the course before. The instructor of the comparison group found it very difficult to teach this section because she understood cognitive developmental theory and had to deal with the challenge of teaching in a didactic manner.

External Validity

Threats to external validity include population validity because these students were not randomly selected and the results are not generalizable to that university's entire population. This study needs to be replicated to make it generalizable. The researcher does not know if the measurement of the dependent variables would show the same results if different instruments were used, or if the students were tested at a later time. The posttesting was conducted at the end of the semester when students are stressed and uninterested in participating in a study. Postesting earlier in the semester or at the beginning of the next semester might provide different results.

Summary

This researcher utilized a quasi-experimental design to explore the cognitive development and study habits and attitudes of high-risk college students taking a study skills course. The objective of the study was to compare the mean scores of students in each group using instruments that assess intellectual development,

conceptual development, and study habits and attitudes. The retention rates of both groups were also compared, and demographic information was collected and compared. Ethical standards were maintained with the use of informed consent and the handling of all material in a confidential manner. The threats to internal and external validity were discussed as they relate to this study.

CHAPTER FOUR

Description of the Intervention

Introduction

This chapter will describe the intervention provided to the experimental group and contrast it with the experience of the comparison group. The intervention was designed using a Deliberate Psychological Education (DPE) model, and it will be described and compared to the comparison group which was taught using traditional methods.

College Studies 101

College Studies 101 (COLL 101) has been offered at Christopher Newport University (CNU) for several years. According to the CNU Undergraduate Catalog (1997-89), the objectives of the course are to assist high-risk students in making the transition to college:

> This course is designed to increase the student's success in college by assisting them in obtaining the knowledge and skills necessary to reach their educational goals. Topics include the nature of a liberal arts education, time-planning, test-taking, communication skills, study techniques, memory skills, question asking skills, library use, and personal issues that face many college students. This course is recommended for freshmen, returning students, and transfer students who have completed less than 30 semester hours of credit. Students who have completed 60 hours or more may not enroll. (p. 132)

The book that is used in the course, which is required of students in all sections is by Ellis (1997), and is called Becoming a Master Student.

The experimental group and the comparison group were both taught on Tuesdays and Thursdays for one hour and fifteen minutes each. The comparison group met at 8:00 AM and the experimental group met at 9:30 AM. The researcher, who taught the experimental group, had taught this course for the

previous four semesters. The instructor of the comparison group had no prior university teaching experience. She was familiar with the DPE model and the concepts of cognitive development. The instructors met regularly to discuss the material being taught and the experience of teaching high-risk college students.

Beginning the Semester

The first week of classes were similar for both groups. On the first day the instructors went over the syllabi with the students and carefully outlined the expectations for the course. At the end of the first class, the students filled out the informed consent forms (Appendix E) and the demographic data sheets (Appendix F). The second class was taken up with the administration of the Learning Environment Preferences (LEP) (Appendix G) and the Survey of Study Habits and Attitudes (SSHA) (Appendix H), and during the third session both instructors gave the Paragraph Completion Method (PCM) (Appendix I). During the first three weeks the two sections were learning the same topics but on the fourth week the two groups were no longer on the same subject. The comparison group had a topic a week and followed the chapters in the book while the experimental group began to learn two topics a week for two weeks. This moved the skills based information to the beginning of the semester and left more time during the second half of the semester to focus on relationships and health. The instructor of the comparison group lectured each class period on the topic of the week and then the students participated in an activity that emphasized the learning of the skills. Students were rarely assigned to small groups to discuss the topic or other assigned issues. The students in the comparison group had a quiz every week on the assigned topic, while the experimental group met in small assigned groups each week to review the material and to make up questions that were used on the mid-term examination. The students in the experimental group wrote a one to two page paper each week in which they reflected on a topic that

was assigned (Appendix B), while the comparison group did not write or journal each week. The students in both groups were taking on the new role of college student, with role-taking being the first condition of the DPE. The next aspect of the DPE is reflection and the experimental group was required to reflect and write on a particular topic each week that was chosen because of its relevance to college students. The reflection assignment was called "Response Papers" and each paper was worth ten points. Students were required to write one or two pages and they lost points if the papers were not at least one page in length. The grammar and writing was corrected but no points were taken off for those errors, and no points were taken off for content. As long as students reflected for at least a page, they were given ten points for each paper. The instructor began the semester with responses that matched students feeling and thoughts, providing the support that is essential to the DPE process. Hunt (1978) recommended the teacher adapt her approach to the students to encourage development in conceptual level, which is what the researcher attempted to do initially in her responses to the students' papers.

Week Two

During the second week of classes the instructor of the experimental group introduced the topic with questions rather than a lecture. This was not entirely successful at the beginning but the students quickly realized she wanted to hear about their experiences and a few brave souls were willing to share their thoughts. As the semester progressed, the students realized she would begin each new topic by asking what they already knew about it, and more students were willing to participate. Weekly, the students would get into assigned groups to discuss the material and to generate questions that were ultimately used in the mid-term exam. The instructor was trying to get the students to become involved in their own education and to encourage the use of study groups. El-Hindi and Childers

(1996) found that students who became active learners by participating in the process were more likely to be successful.

The second week of classes also included a small group problem solving exercise that required students to find time in a schedule for other activities besides classes and work. The exercise was designed with these particular students in mind since many of them hold a part-time job in addition to being full-time college students. Each student received a weekly calendar with a typical freshman schedule blocked out, and a 20 hour a week part-time job blocked out, and each group had to find study time that equaled two hours for every hour in class. Also, one group had to find time for a student athlete to practice and participate in a sport; another group had to find time for a student with two children and a spouse; another group found time for a student with two children and no spouse; the fourth group found time for a student who was a fraternity or sorority president; and the fifth group was to design a schedule for a student who commuted an hour to get to CNU every day. Each group shared with the whole class how they scheduled time and a discussion followed concerning the choices that they had to make.

Week Three

The next week the topic was "Resources" and both groups had a tour of the library, the career and counseling center, and the computer center. These tours have been a part of this course for several years and they provide the students with a familiarity with the resources available on campus that Levitz and Noel (1989) say is so important to students' success.

Week Four

The following week, the experimental group covered the topics of "Memory" and "Reading" by answering questions about what they already knew about those subjects, and then in small groups, discussing what they found in the textbook

that was new for them. They participated in three whole class exercises that taught them memory techniques; they read editorials from the local newspaper, then in small groups discussed the assumptions and biases of the writer. They also had to agree on a rebuttal for the editorial and share with the whole class the editorial and their rebuttal. This forced students to take a position that they might not agree with and to form an argument by taking another side. Many students began their rebuttal with a disclaimer that this was not what they really believed. This began the process of challenge which is an important component of the DPE. Students were put in a position of stating a case that they did not really believe in but it also made them think "like someone who might disagree with you." They were given the dilemma from the Defining Issues Test concerning the student and the newspaper (Appendix C) to discuss in small groups and in the larger group. During this week students were assigned to a group for a presentation they would give to the entire class later in the semester.

Week Five

Week five was devoted to the topics of "Notes" and "Tests". After a class discussion about the note-taking techniques students use they were divided into four groups and each group took notes from a video presentation using a particular style such as the Cornell method, outline method, etc. In their small groups they discussed the pros and cons of the new method they had tried, then with the entire class, they shared what they had learned and what they had missed. In different small groups they did an exercise where they had to solve a logic problem which encouraged them to practice problem solving and working in groups to accomplish a stated goal. During this week they were given the dilemma from the DIT concerning the escaped prisoner (Appendix C). They answered the questions themselves then, in small groups discussed the decision they had made. An entire class discussion followed with a debate ensuing about

turning the prisoner in or not. Those who thought the prisoner should be turned in had to argue against it and vice versa.

Week Six

During week six the topic was "Thinking" and they watched a video about the Holocaust. The class was divided in half and one side took the position that other countries should have taken in Jews during that time, and the other side argued that countries could not take them in due to various factors. With the class divided in half, there would be safely in numbers, but this was extremely difficult for these students. Very few students on each side were willing to talk, and even when encouraged by questions from the instructor, others were not willing to participate. The students said they had studied the Holocaust in high school and none of this was new to them, and seemingly, of very little interest to them. They also did an exercise in small groups that required them to decide which six out of ten people would go into a fallout shelter before a nuclear war (Appendix C). They were required to come to a consensus and explain their decision to the rest of the class. One group could not agree and gave up before the exercise was finished. In the larger group there was a discussion of who was chosen to go into the fallout shelter and students were required to defend their choices to the larger class.

Week Seven and Eight

The topic for this week was "Writing" and students discussed plagiarism and how they prepare for a writing assignment. They were given the dilemma of Heinz and the drug from the DIT (Appendix C) and discussed if he should steal the drug to save his wife or not. Students who thought he should steal the drug had to argue that he shouldn't and vice versa. This was the last week before the mid-term exam and they were given a study guide of the questions they had generated. The test was originally going to consist of ten essay questions but they

asked to have some multiple choice and true/false questions on it and fewer essay questions. The instructor and the students negotiated and the actual test had five essay questions, ten questions that required short lists for answers, and ten multiple choice questions. The next class period was used as a review session for the exam that was held during the subsequent class and following Fall break.

Week Nine

The next topic was "Diversity" and the students watched a video called "The Eye of the Storm" which was about an experiment in a third grade classroom in Iowa. the video showed that on the first day all the blue eyed children in the class were told they were "superior" and the brown eyed children were told they could not play with the brown eyed children or drink from the water fountain, and they had to sit in the back of the classroom. On the following day the brown eyed children were told they were "superior" and the blue eyed children were sent to the back of the classroom and given the same experiences as the other children had the day before. After two days the children talked about how it felt to participate in that experiment and discussed discrimination. The CNU students had a discussion about the video and then were asked about their own experiences of being discriminated against. This discussion carried over into the next class period.

The first class presentation was done during that week and there was one a week for the next five weeks. The students were in assigned groups and were required to visit a local agency such as the American Red Cross or Peninsula AIDS Foundation, and bring back information to share with the class. There were five or six students in each group and each member had to address the class for a few minutes. They were to provide information on the services the agency offers, the population they serve, and how one might become a volunteer. Bringing brochures or posters to share with their fellow students was encouraged.

Week Ten and Eleven

A speaker from Planned Parenthood came to the class for the topic of "Relationships" and did a presentation on HIV prevention. She was a lively speaker and particularly had their attention when she showed them devices to prevent sexually transmitted diseases. During the next class period they did a communication exercise with blocks. One person would stand behind a barrier and build something with the blocks and then tell another person how to build an identical structure using only words. They were very surprised how difficult it was and the entire period was spent with numerous students trying the exercise. A discussion followed about what they learned and how it can impact their own relationships.

The following class was spent watching television, and they were shown portions of a game show, a situation comedy, a talk show, and a newscast. They had questions to answer concerning those television shows (Appendix C) and then went into small groups to discuss what these programs are teaching or reflecting about our culture. They were encouraged to critically analyze the programs and then look at the impact on their own lives. Many of the students had previously complained that the class period was during the "Jerry Springer Show" and admitted they watched a lot of television but were unable or unwilling to take a critical look at it. They said they know it is not "real" but it is fun and an escape or a way to relax.

Week Twelve and Thirteen

The topic was "Health" during the next two weeks and the students took the alcohol information quiz and the alcohol use quiz (Appendix C), and a discussion followed about alcohol and its use and abuse. These students were very savvy about alcohol use and abuse and readily admitted to making some dangerous choices concerning alcohol. During the next class other drugs were discussed

using "Controlled Substances Chart" (Appendix C). Many of them believed some myths about some drugs and were very knowledgeable about others. They were asked to get into groups of six or more and discuss the legalization of marijuana. Each small group was divided into three groups of two or more and one couple had to argue for the legalization of marijuana, another couple argued for the legalization only for medicinal purposes, and the other two argued against the legalization of the drug. They did this in their smaller groups and then returned to the larger group and continued the debate remaining in the position that they were assigned. Some students felt very strongly about this topic and this was the liveliest discussion of the entire semester.

The next two class periods were spent with the exercise "Rank order your choices" (Appendix C) that was used to spark discussions. In small groups, students discussed the first three items and had to defend their choices to the members of the group. In the larger group the discussion centered around taking care of elderly parents and they had to defend a choice that they would not make. This was very difficult because many believed they would be "bad" children if they made certain choices. The next discussion, beliefs about divorce, was less abstract and more real because many had parents who were divorced and they had more personal experience with the topic. The focus for all of the students was to take into consideration the feelings of the children involved.

Ending the Semester

During the final three class periods the students were given the posttests of the LEP, SSHA, and the PCM. There were a number of students in both groups who did not attend classes during that period, and therefore there are only fifteen complete sets of measures for the experimental group and eleven sets for the comparison group. During the last several weeks of the semester there were

numerous absences in both groups and it was challenging to choose a day to do the posttesting.

The Comparison Group

The major differences between the experimental group and the comparison group were that the students in the comparison group did not write a reflective paper each week, and they usually did not have discussions in small groups. Students were not given topics to write about each week nor were they asked in each class period to form small groups to discuss various subjects. The course was designed to be didactic with the instructor spending most of the class time giving lectures of the material (Appendix D).

Summary

The intervention that the experimental group participated in was described in this chapter. The activities that comprised the intervention as they related to the weekly topics were explained, and the events of each class period were outlined.

CHAPTER FIVE

Results

Introduction

The purpose of this study was to explore the intellectual and conceptual development, and the attitudes and study habits of high-risk colleges students taking a study skills course. This was a quasi-experimental study with the experimental group receiving instruction based on the Deliberate Psychological Education (DPE) model (Mosher & Sprinthall, 1971), and the comparison group being taught in the traditional manner. The findings of this study will be presented in this chapter which is organized in three sections: descriptive statistics, analysis of the research hypotheses, and qualitative description.

The descriptive statistics will specify the demographic variables of the two groups of students. Statistical analysis of the measures for intellectual development, conceptual development, and study habits and attitudes will be presented next. The qualitative description provides a deeper understanding of the experience of the students.

Descriptive Statistics

Fifty students participated in this study with 27 in the experimental group and 23 in the comparison group. In the experimental group there were 16 females and 11 males while the comparison group consisted of 11 females and 12 males (Table 1). The mean age for the entire sample was 18.32 years with a range of 17 to 24 years. The experimental group had three 17 year olds and one 24 year old while the comparison group had four 17 year olds and one 23 year old student. Both groups seemed to be evenly divided according to age (Table 2). In the experimental group there were 26 freshmen and one senior while the comparison group had 22 freshmen and one sophomore (Table 3). Most of the students in each group were Caucasian with three African-American students in the

experimental group and five African-American students in the comparison group. Students had six options to choose from for race on the demographic sheet but only the two groups were represented (Table 4).

One student in each group lived in an apartment, and nine from each group lived with their parents, while sixteen students in the experimental group and thirteen in the comparison group lived in the residence hall (Table 5). This university opened the first residence hall three years ago and there are still a large number of students who commute to college. Forty seven of the students in the sample were full-time students with two being part-time; those two were in the comparison group and one student in the comparison group did not check either option (Table 6). When asked the reason for taking the course, students could choose to check off that it was required, an elective, or on probation. In the experimental group 5 students said the course was required, 14 took the course as an elective, and 8 reported that they were on probation. The comparison group had 3 students who were required to take the course, 7 electing to take the course, and 12 on probation, with one person not filling out that piece of information. The students on probation were required to take the study skills course so fifty six percent of the students in the study were taking this course as a requirement of attending this university (Table 6).

TABLE 1

Description of Gender of Students (n=50)

	Experimental Group (n=27)		Comparison Group (n=23)	
Gender	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Male	**11**	**40.7**	**12**	**52.1**
Female	**16**	**59.3**	**11**	**47.9**

TABLE 2

Description of Age of Students (n=50)

	Experimental Group (n=27)		Comparison Group (n=23)	
Age	**Frequency**	**Percentage**	**Frequency**	**Percentage**
17	3	11	4	17
18	20	74	13	57
19	2	8	2	9
20	1	3.5	3	13
over 20	1	3.5	1	4

TABLE 3

Description of Educational Level of Students (n=50)

	Experimental Group (n=27)		Comparison Group (n=23)	
Level	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Freshman	26	96.2	22	95.7
Sophomore	0	0	1	4.3
Senior	1	3.8	0	0

TABLE 4

Description of Race of Students (n=50)

	Experimental Group (n=27)		Comparison Group (n=23)	
Race	**Frequency**	**Percentage**	**Frequency**	**Percentage**
African-Am.	3	11	5	22
Caucasian	24	89	18	78

TABLE 5

Description of Residence of Students (n=50)

	Experimental Group (n=27)		Comparison Group (n=23)*	
Residence	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Residence Hall	16	59.2	13	57
Apartment	1	3.5	1	4.3
Parents	9	37.3	9	34.4

* One student did not supply this information.

TABLE 6

Description of Full-Time or Part-Time Status of Students (n=50)

	Experimental Group (n=27)		Comparison Group (n=23)*	
Status	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Full-time	27	100	20	87
Part-time	0	0	2	8.7

*One student did not supply this information.

TABLE 7

Description of Students' Reason for Taking the Course (n=50)

	Experimental Group (n=27)		Comparison Group (n=23)*	
Reason	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Required	5	18.5	3	13
Elective	14	51.5	7	30.4
On prob.	8	30	12	52.3

* One student did not supply this information.

Analysis of the Research Hypotheses

In this section each research hypothesis will be restated and results will be presented for the hypotheses. An independent samples t-test was done on the pretest Learning Environment Preferences (LEP), the Survey of Study Habits and Attitudes (SSHA), and the Paragraph Completion Method (PCM) for the two groups to be sure they were the same at the beginning of the semester since the students were not randomly assigned to groups. The t-test was used rather than an analysis of covariance (ANCOVA) because the ANCOVA, which reduces variability and error, also reduces effect size. The small sample size has already had an impact on effect size. The Bonferroni technique was used to maintain alpha at .05 in order to reduce experiment-wide error. The t-tests showed that the groups were the same at the beginning of the semester (Table 8). A repeated measures analysis of variance was used to measure differences from the pretest to the posttest for each group on the LEP and the PCM. The scores for the SSHA for the two groups were combined and a repeated measures analysis of variance was used to measure pretest to posttest differences. Alpha was set at .05 for the analysis to determine statistical significance.

TABLE EIGHT

Independent Samples T-Test

Group Statistics

Group	N	Mean	Std. Dev.	Std. Err. M
LEP 1				
1.00	12	301.6667	41.8772	12.0889
2.00	19	320.5789	47.2244	10.8340
PCM 1				
1.00	15	1.6067	.3390	8.754E-02
2.00	19	1.6474	.3098	7.107E-02
SSHA 1				
1.00	17	100.4118	19.1281	4.6392
2.00	20	87.4000	23.0615	5.1567

Independent Samples Test

	t-test for Equality of Means				
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
LEP 1					
Equal variances assumed	-1.133	29	.267	-18.9123	16.6928
Equal variances not assumed	-1.165	25.653	.255	-18.9123	16.2332
PCM 1					
Equal variances assumed	-.365	32	.718	-4.07E-02	.1115
Equal variances not assumed	-.361	28.804	.721	-4.07E-02	.1128
SSHA 1					
Equal variances assumed	1.847	35	.073	13.0118	7.0442
Equal variances not assumed	1.876	34.986	.069	13.0118	6.9364

	95% Confidence Interval of the Mean	
	Lower	Upper
LEP 1		
Equal variances assumed	-53.0529	15.2283
Equal variances not assumed	-52.3021	14.4776
PCM 1		
Equal variances assumed	-.2679	.1865
Equal variances not assumed	-.2714	.1900
SSHA 1		
Equal variances assumed	-1.2886	27.3122
Equal variances not assumed	-1.0701	27.0937

Hypothesis One

High-risk college students in the intervention group show higher levels of intellectual development on the posttest as measured by mean scores on the Learning Environment Preferences (Moore, 1989) than the comparison group.

Hypothesis Two

High-risk college students in the intervention group show higher levels of cognitive complexity as measured by mean scores on the Paragraph Completion Method (Hunt, Butler, Noy, & Rosser, 1977) than the comparison group.

There were no statistically significant differences between the two groups on the postests of the LEP and the PCM (Table 9).

TABLE 9

Tests of Within-Subjects Effects

Within Subjects	Value	F	Hypothesis df	Error df	Sig.	Noncent. Param.	Obs. Pow.
TIME							
Pillai's Trace	.023	.281	2.000	24.000	.758	.561	.089
Wilks' Lambda	.977	.281	2.000	24.000	.758	.561	.089
Hotelling's Trace	.023	.281	2.000	24.000	.758	.561	.089
Roy's Largest Root	.023	.281	2.000	24.000	.758	.561	.089
TIME*GROUP							
Pillai's Trace	.025	.305	2.000	24.000	.740	.610	.093
Wilks' Lambda	.975	.305	2.000	24.000	.740	.610	.093
Holtelling's Trace	.025	.305	2.000	24.000	.740	.610	.093
Roy's Largest Root	.025	.305	2.000	24.000	.740	.610	.093

Hypothesis Three

Students in both groups have more effective study attitudes and habits as measured by the Survey of Study Habits and Attitudes (Brown & Holtzman, 1967).

There was no statistically significant difference between the pretest scores and the posttest scores for both groups (Table 10).

TABLE 10

Multivariate Tests

Effect	Value	F	Hypothesis df	Error df	Sig.	Noncen. Param.	Obs. Pow.
TIME							
Pillai's Trace	.009	.334	1.000	36.000	.567	.334	.087
Wilks' Lambda	.991	.334	1.000	36.000	.567	.334	.087
Hotelling's Trace	.009	.334	1.000	36.000	.567	.334	.087
Roy's Largest Root	.009	.334	1.000	36.000	.567	.334	.087

The following two tables show the means of the pretests and the posttests of all the instruments. Table 11 shows the means of all of the students' scores on the three instruments, and Table 12 shows the means of the instrument scores that were used in the repeated measures multivariate analysis of variance which excludes any subject who has not taken all of the instruments.

TABLE 11

Means of all Scores

Group	LEP 1	LEP 2	PCM 1	PCM 2	SSHA 1	SSHA 2
1.00						
Mean	307.0000	306.5833	1.5895	1.7000	95.9545	98.2778
N	22	12	19	16	22	18
Std. Deviation	41.4476	42.2276	.3281	.2477	19.0475	21.2791
2.00						
Mean	317.3462	316.6500	1.6696	1.6000	87.3704	86.2000
N	26	20	23	19	27	20
Std. Deviation	43.3229	35.4524	.2945	.3844	27.1097	28.3579

TABLE 12

Means of Scores Used in Statistical Analyses

Group	LEP 1	LEP 2	PCM 1	PCM 2	SSHA 1	SSHA 2
1.00						
Mean	301.6667	306.5833	1.6067	1.6667	100.4118	97.7647
N	12	12	15	15	17	17
Std. Deviation	41.8772	42.2276	.3390	.2160	19.1281	21.8189
2.00						
Mean	320.5789	319.4737	1.6474	1.6000	87.4000	86.2000
N	19	19	19	19	20	20
Std. Deviation	47.2244	34.0349	.3098	.3844	23.0615	28.3579

Hypothesis Four

Students in the intervention group have a higher retention rate than the students in the comparison group as evidenced by registration for the next semester.

In the experimental group 21 out of 27 (77.8%) students registered for the Spring 1998 semester and 20 out of 23 (87%) students from the comparison group

registered at CNU. The Chi-Square test for non-parametric measures was used to determine if the differences were statistically significant and they were not.

TABLE 13

Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.709**	1	.400		
Continuity Correction*	.223	1	.636		
Likelihood Ratio	.723	1	.395		
Fisher's Exact Test				.479	.321
Linear-by-Linear Association	.695	1	.405		
N of Valid Cases	50				

* Computed only for a 2x2 table

** 2 cells (50%) have expected count less than 5. The minimum expected count is 4.14.

Three of the students in the experimental group reported in their final project that they were transferring to a community college so they did not continue at CNU but they did stay in college. It is highly likely that there were other students that transferred to another college because their grades in the course were not indicative of students who would not persist in college. Two students in the experimental group earned an A- and a B, and one student in the comparison group who left CNU earned a B+. Three students who withdrew from the course registered for the Spring semester at CNU, and one was from the experimental group and the other two were from the comparison group. As stated earlier, one

student withdrew from each section during the first week of classes and did not participate in the study. One student in the comparison group withdrew during the semester but continued at the university. Only one student failed the course and did not register for the Spring semester; that student was in the experimental group.

Additional Analyses

In addition to analyzing the data to meet the hypotheses, the demographic data was analyzed using Chi-Square Tests to determine if the two groups differed on other variables. The variables used were age, race, and residence. The groups did not differ on those variables.

Qualitative Description

As part of the support that is essential to the DPE model, the researcher met with over half of the students in the experimental group for a short interview. These students had done poorly on the midterm exam and the instructor asked the students to meet with her to sort out what had gone awry for them. They were also offered extra credit to offset the poor exam grade. Not all students who had a need for extra credit participated and the eight students that did seemed to enjoy the experience. From these interviews certain patterns emerged that add a qualitative aspect to this study. The data from the interviews was coded and chunked to cull the themes that were common to many students.

The first theme that emerged was an awareness of the need for the course that carried with it two different ways of approaching it. All of the students admitted they had shortcomings in areas that would hinder their college success. That might be procrastination, an over-involvement in social or sports activities, or poor test-taking skills as evidenced by low Scholastic Aptitude Test scores. Half of the students knew they needed the course, signed up willingly, and were optimistic about what they might learn. The other half were resentful that the

course was required for them and annoyed that they had to drop another course to take it or that it wasn't in their major. At the time of the interviews all of the students reported they were glad they had taken the course. One student said, "The expectation that I had before the class was that I wasn't going to enjoy it but after the first class, I found out that this was going to be a great class. I was actually having fun and the class was a real break from the stress of my other classes. I have learned to study better and taking notes from this class. This class has helped me communicate better with people." Another student took the course because, "my baseball coach advised me to take it in case I failed another course, this would help my GPA and I could still play ball. Now I think everyone should take this course; I've got better study skills; my writing is better; I have the responsibility of having something due every week and that's been good."

Another theme for these students was the interpersonal aspect of being a college student that goes beyond study skills but also has an impact on college success. A student reported, "I've gained a lot of friends from this class; that's probably the most important thing I've gotten from this class. But I also have gained the confidence to continue to pursue my dreams and goals." Another student recommended, "You should move Relationships to the beginning of the semester; this has helped me deal with certain relationships I have been dealing with but we could use that at the very beginning." While another student reported that she is "more compassionate toward people. The discussions have made me think. I guess its important to show people that you care; those are some things I didn't think about before."

The third theme to emerge had to do with study skills and learning new ways of being students. All of the students who were interviewed reported better study habits in various areas. The two areas that most students reported improvement in were time management and writing skills. One student reported, "This class has

helped me manage time and write papers. I'm writing better; the response papers get me thinking and that helps me write; I do them then I do my English assignments and that helps a lot." Another said, "I'm using my time more wisely; I'm better at scheduling things and I'm not waiting till the last minute like I used to."

Summary

In this chapter, the descriptive statistics of the study were presented that clearly showed the demographic information of the study participants. The statistical analysis of the data was explained and the results demonstrated in graphs. A qualitative aspect of the study was explained and the students' own words were used to share the depth of the experience for them.

CHAPTER SIX

Discussion and Conclusions

Introduction

This research was designed to explore the cognitive development of high-risk colleges students enrolled in a study skills course. The premise was that by using a Deliberate Psychological Education model, the students enrolled in the experimental group would show higher gains on the Learning Environment Preferences (LEP) and the Paragraph Completion Method (PCM) than the students in the comparison group. It was also expected that students in both groups would show gains in the Survey of Study Habits and Attitudes (SSHA). There was an expectation that students in the experimental group would have higher retention rates at the end of the semester. None of these things happened. In this chapter there will be a discussion of possible reasons for the lack of change for these students and the implications for further research with high-risk college students in light of this study.

Limitations of the Study

The findings did not support the hypotheses and there are several factors that may have impacted this study. The sample for this study was very small and it violated the central limit theorem that states, "As sample size increases, the sampling distribution of the mean will approach a normal distribution" (Kiess, 1996). Most statisticians recommend a sample of at least thirty people in order to approximate the normal distribution. In this study there were 15 students who completed all of the measures in the experimental group and 11 who completed

all of the measures in the comparison group. The repeated measures MANOVA assumes the normal distribution of the sample, and both groups were far below the recommended sample size for that assumption to be made. Even with the two groups combined with a total of 37, as was done in the analysis of the SSHA, the assumption of a normal distribution was not met.

High-risk college students were the population studied and by their very nature they provide challenges to doing research. Many of the students in the sample were working students or had other obligations that precluded them from attending class. This had an impact on the pretesting and posttesting because an absent student cannot be tested, but it also may have had an impact on the outcome. Students who do not attend classes regularly cannot be impacted by the experience of participating in the process, whether it is learning basic study skills or critical thinking. McAdams (1988) suggested that this population may be averse to participating in new educational experiences because of the string of past failures they have encountered. Many of these students have had negative experiences related to their schooling and may not have been very open to the instructional opportunities that were presented to them. There were some students in the study who would not be considered high-risk but who chose to take the course to assist them in making the transition to college. The number of these students was too small to do a statistical analysis separate from the others to ascertain whether they were impacted by the intervention. Forty nine percent of the students in the experimental group were required to take the course while

65% of the comparison group were required to take the course. While there is no statistical difference between the two groups' reasons for taking the course, the higher number of students on probation may have impacted the results of the study. Students who are required to take this course in order to enroll and remain at the university may be more motivated and that may have resulted in no statistical difference in the two group's postest measurement scores.

The DPE model is different from a didactic or lecture method and that may have been unsettling to the students. High-risk college students are already undertaking a new and possibly frightening experience, and to have a class that is supposed to assist them taught in a new and different way may have been disconcerting. Knefelkamp, Widick, & Parker (1978) recommend a classroom environment that provides a large amount of structure to provide dualistic students the atmosphere that they need to learn and grow. Students may be comfortable enough to learn at a level above or below their own but may become fixated in dualistic thinking if they are in an environment that is not close enough to their comfort level. Widick, Knefelkamp, & Parker (1975) described a curriculum that was designed to foster growth for students in the dualistic stage. They suggest that diversity of thinking be introduced slowly so that students can become used to the new way of thinking; moving too fast can cause students to stall in the old ways of interacting in the world. They stated that students who are dualists may think group tasks are a waste of time because the instructor knows the answers and the students do not. The students in the experimental group did

numerous group tasks and their thinking was challenged by other students. It is possible that the classroom environment was not structured enough for the dualistic thinkers and that the instructor should have challenged the students' thinking rather than allowing other students to do it. Since there was no movement at all on the LEP for the experimental group it is reasonable to assume that there was not enough structure and that the diverse ideas that were presented came too fast for the students to handle.

Terenzini, Springer, Pascarella, & Nora (1993) warn that one semester may be too short a time period for college student development to occur and that is an important limitation of this study. McAdams (1988) noted this concern in his study and it continues to be an ongoing challenge for researchers with limited time and resources to assess changes in college students. In an ideal world this study would have been longitudinal in nature and these students would have been posttested at the end of each year of college rather than at the end of their first semester. There is also the issue of when posttesting occurred. The measurements were given to the students during the last two weeks of classes when most students are stressed, overwhelmed, and tired. They are also preparing for final exams and do not have the proclivity to thoughtfully answer test questions for a study. At the beginning of the semester students are optimistic and enthusiastic about the possibilities awaiting them, while at the end of the semester they are harried and, in many cases, disappointed about the realities of college. This is not a time that is conducive to accurately assessing students' developmental growth.

One of the essential factors in the DPE is a new role-taking experience (Reiman, 1995) and it was assumed that students' new life in college would be an adequate role-taking component but that may not have been sufficient. The role-taking experiences related in the literature included supervision (Foster & McAdams, 1995), and tutoring (Sprinthall & Scott, 1989), both of which require taking on a new role and interacting with another person in a particular capacity. The college students in this study did not have that aspect of the DPE. Instead they were required to visit an agency in the community that provides services to various populations and to report back to the class in the form of an oral presentation. The agencies they chose were the American Red Cross, Big Brothers/Big Sisters, Peninsula AIDS Foundation, Mothers Against Drunk Driving, and the Peninsula Council on Domestic Violence. They all had interesting and lively presentations with some making posters, videos, and most of them having brochures from the organizations. Visiting the agency and reporting back to their classmates did not have the desired impact of promoting cognitive development for these students.

It is entirely possible that the experiences of the two groups were not different. Diffusion of treatment was a concern noted in Chapter Three, and it may have had a rather large impact on the study. The instructors of the two sections that comprised the experimental and comparison groups met weekly throughout the semester to discuss their experiences. The instructor of the comparison group had not taught this course before and the researcher acted as a guide for her. The

comparison group instructor shared the challenge she faced because she is trained in cognitive developmental theory and wondered if her students were being short-changed. She found it difficult to not give them what she thought was an optimal educational experience. In trying to assist her in making her course interesting, the researcher probably shared too much material and resources that contributed to the diffusion of treatment. Both instructors also participated in a supervision group where the challenges they were facing were discussed and it is within the realm of possibility that this aspect of their shared experience further exacerbated the diffusion. The researcher was caught in a difficult position which was trying to conduct an experiment that would have statistical significance and trying to be a helpful colleague. The struggle of being in that position may have had an impact on everyone involved.

Perry (1978) cautions educators to have an awareness of the sense of loss that occurs in the educational process. He asks:

> What do we do about the house we leave when we go to a new place? When we leave the way we saw the world, in which everything was just so and just as we thought, and we see it all differently, we move into a world where all of what was solid and known is crumbling. And the new is untried. What do we do about the house we just sold out of? What do we do about the old simple world? It may be a great joy to discover a new and more complex way of thinking and seeing, but what do we do about all the hopes that we had invested and experienced in those simpler terms? When we leave those terms

behind, are we to leave hope, too?" (pp. 270-271)

He bemoans the fact that we do not encourage grieving in our society and particularly not the loss of past selves that education strips away.

Kloss (1994) outlines the sense of loss that is inherent in the growth process and which has not been addressed or measured in this study. He said, "education helps to make you more rational, not necessarily happier, helps you to struggle better, if not always to succeed" (p.157). Did the sense of loss that these students felt have an impact on this research? We cannot know because it was not measured or even acknowledged as a variable. It is entirely possible that grieving students are not in a position to exhibit a growth in cognitive development if it did occur.

The "disequilibrium" that Haan (1985) says is essential to the growth process may also hinder that same process. Students who have been pushed off balance by their arrival at college may not be in the most optimum state to participate in a growth inducing experiment. This is not a suggestion that this type of course be offered later to students, but it is an acknowledgment that the effects of this course may not be apparent until a state of equilibrium has been attained. While the growth may have taken place, the accommodation and assimilation of the experience may not have occurred.

Suggestions for Further Research

While the results of this study were not expected, there is still a need for a replication of this study and for further research with this population. This sample

been difficult to have two experimental and two comparison sections, it would have been more challenging to the comparison group instructor. She was allowed to teach her other section using a DPE and this would have required her to maintain the comparison curriculum for both sections.

In another study of this type it would be essential to have the comparison group taught by someone who is not familiar with cognitive developmental theory and the DPE model. While there can certainly be interaction between the two instructors, there must be more of a distinction made between the two groups.

It would be beneficial for the students in the experimental group to have more of a participation in a local agency that required real-world interaction. This might be accomplished by a requirement that they volunteer a certain number of hours during the semester. That would add to the role-taking aspect of the DPE that encourages the taking of another's perspective.

A pilot study would have prevented some of the problems that were apparent in this study such as the lack of a role-taking experience and the reflection topics being unrelated to the experience. The experimental group instructor had not taught a class using a DPE before and her lack of experience in using this model may have impacted the results of the study.

Research that includes follow-up posttesting of all the measures at a later time would enhance the ability of researchers to improve the educational experiences currently available to students. The brief qualitative aspect of this study provides a glimpse of another way to approach this population. Hunt (1978) encourages

researchers to explore the case study approach to college student development both from the student's perspective and from the practitioners' perspective. He says,

> Such a characterization will likely take the form of case studies emphasizing person descriptions. Characterizing program effects will also take account of the change in participating persons ... as a result of their interactions." (p.265)

Given the small sample size this may be the way to begin to fully understand how the experience of being in College Studies 101 effects students.

There are other aspects of the college experience that were not touched on in this study but came to the forefront through the qualitative aspect of the study. Student athletes have a particular experience as do those who plan to participate in sports while in college as this student did:

> Last Spring, the baseball coach recruited me and told my high school baseball coach and I that the firstbase position was not taken down here. My coach and I talked about it and decided that this would be a good opportunity for me. When I got down here and started to play Fall Ball, I soon realized that the starting firstbaseman and the back up firstbaseman were both back and that the coach had lied to me. A couple of weeks later I was cut. This made me very mad. I didn't understand why he would lie to me like that. I went and talked to him and he told me he wasn't expecting those two players to return. That's not the same story I heard last Spring though. I'll never forget my only semester here at CNU.

Another student shared his experience on the soccer field:

> Going into the game I was the dominant scorer on the team but still not a dominant forward. After the game I would say I no longer considered myself a rookie. Right when the game started in the first five minutes of the game I received the ball from a throw-in and turned to goal about 20 yards out. Dribbling to goal I beat four players and shot the ball in the top shelf of the goal. This was my most spectacular goal. Later in the second half I scored again on a great hustle play by me and then later added an assist to Steve to win the game 3 to 1. After the game I remembered why I loved playing soccer after a bitter early season. I still get compliments from my father and Coach about how well I executed that day.

These students' experiences in sports may be having an impact on their development but it was not explored in this study. There are other experiences that college students have that make an impression on them such as fraternity/sorority membership, adjusting to roommates, and being commuters. One student shared:

> I believe that the most memorable thing that happened to me this semester was becoming a brother of Sigma Pi. I did a lot of fun things during pledging and rush and if I had to do it again I would do it in a heartbeat it was one of the funniest times of my life. The only drawbacks to that are my grades were affected. I still have no regrets about doing it though.

Another student said:

> My roommate was a very strange fellow and we had to work out a lot of problems together. He was a very messy person and we had to set guidelines for cleaning the room. He was a vegetarian so we had to set space aside in the refrigerator for each other's food. Overall, it was a pretty good semester, but I had to be very creative when learning to adapt.

A third student explained:

> I got this ticket on the way to class form my house. I got a reckless driving ticket because I was running late because I had taken my sister to the doctors because she had just had surgery and she had a check up. Well, I take care of this whole thing by myself and my dad is so mad at me. But this has been really hard but I have to learn that you should not speed to get anywhere because you will take longer if you get stopped. I have to pay this $99 ticket by January 29th, when I have court. This should be even more interesting, but it is my first offense so I hope and pray that they will knock it back to just speeding.

The students' own word provide a multitude of areas in which to explore what kinds of experiences are helpful and how they provide opportunities for development.

Conclusion

This chapter has discussed the limitations of this study and explored areas for further research. While the results of this study may seem disappointing, in fact, they provide a framework for further research with this population. This study

was one small step toward building a program for high-risk students that meets their needs and encourages cognitive development. The DPE model has been shown to be effective in other environments, and with some fine-tuning that considers the needs of this particular population, can be found to be effective in this environment also. It is essential that more research be done in this area because the failure of one student impacts all of us for many years to come.

APPENDICES

Appendix A
Syllabus for the Experimental Group

COLLEGE STUDIES 101
THE COLLEGE EXPERIENCE: BECOMING A MASTER STUDENT
FALL SEMESTER 1997

Instructor: Sandra Loew, Ed.S.
Office: Ferguson (English Department) **Phone:** 594-7032
Office Hours: By appointment

COURSE DESCRIPTION: This course is designed to teach you how to have a successful college experience both academically and personally. The focus will be on the development of practical knowledge and skills to assist you toward that goal. Topics include time-management, test-taking, communication skills, study techniques, campus resources and managing the personal issues that face many college students.

REQUIRED TEXTBOOK: Becoming a Master Student, 8th Edition, by David B. Ellis. Published by College Survival, Inc.

OBJECTIVES: Upon completion of this course, you will be able to:
1. Describe how you are responsible for, and can create a successful college experience.
2. List and describe the specific methods to:
   A. Improve ability to recall information
   B. Manage time more effectively
   C. Read a textbook with improved retention
   D. Prepare for and take tests
   E. Present reports, both written and oral
   F. Listen to and comprehend a lecture
   G. Apply creative and critical thinking skills
3. Utilize a model of communication that facilitates interactions with friends, family and instructors which is helpful to the learning process.
4. Match resources that are available on campus and in the community that can assist you with problems related to health, academics, relationships, discrimination, substance abuse, library research, financial aid, social issues, etc.
5. Be able to report to fellow students and the instructor, both orally and in written form, the current experiences of college life.
6. List several guidelines for making plans that effectively promote success.

TEACHING STRATEGIES: The objectives of this course will be achieved by lectures, class discussions, small group discussions, individual and group exercises, guest lectures, and assignments outside of class.

EVALUATIONS AND GRADING:

ATTENDANCE AND PARTICIPATION: Your success in this course will depend in large measure on the interest and enthusiasm that you and your classmates bring to the experience. This course is interactive in nature, therefore, attendance and participation are essential. **If, FOR ANY REASON, you must miss a class, please call my office or tell me in person prior to your expected absence.** It is your responsibility to make up any missed work or assignments. Arriving late and leaving early are disruptive to the class and preclude active participation, so neither is acceptable.

MIDTERM EXAM: There will be a midterm exam consisting of ten essay questions. The exam will cover the material that has been presented in class and reading assignments.

RESPONSE PAPERS: Response papers or journals are intended to promote communication between you and the instructor. Each week you will hand in a typed, double-spaced paper in which you have written your insights about particular aspects of your college experience or activities related to College Studies 101. In addition, you should feel free to use your journal to share any insights, ideas, or difficulties you may be experiencing. Anything you write in your journal will be treated as confidential.

CLASS PRESENTATION: You will work with an assigned group of 2 or more to present a program to the class related to the current material.

GRADING:

Midterm exam	100
Response Papers (12 @ 10 points each)	120
Class Presentation *	60
Attendance and Participation	60
Final Project *	160
TOTAL	500

* Missing these activities results in failing the course.

GRADING SCALE:

A 480-500 pts.	A- 460-479 pts.	
B+ 440-459 pts.	B 420-439 pts.	B- 400-419 pts.
C+ 380-399 pts.	C 360-379 pts.	C- 340-359 pts.
D 300-339 pts.	F 299 pts. and below	

OUTLINE OF COURSE:

Week 1: August 26, 28
Chapter 1, First Step

Week 2: September 2, 4
Chapter 2, Time
Response paper #1 due on 9/2

Week 3: September 9, 11
Resources
RP #2 on 9/9

Week 4: September 16, 18
Chapter 3, Memory, & Chapter 4, Reading
RP #3 on 9/16

Week 5: September 23, 25
Chapter 5, Notes, & Chapter 6, Tests
RP #4 on 9/23

Week 6: September 30, October 2
Chapter 8, Thinking
RP #5 on 9/30

Week 7: October 7, 9
Chapter 9, Writing
RP #6 on 10/7

Fall Break (no class on 10/14).

Week 8: October 16
Midterm Exam

Week 9: October 21, 23
Chapter 7, Diversity
RP #7 on 10/21
Class presentation #1 on 10/23

Week 10: October 28, 30
Chapter 10, Relationships
RP #8 on 10/30
Class presentation #2 on 10/30

Week 11: November 4, 6
Chapter 10, Relationships
RP #9 on 11/4
Class presentation #3 on 11/6

Week 12: November 11, 13
Chapter 11, Health
RP #10 on 11/11
Class presentation #4 on 11/13

Week 13: November 18, 20
Chapter 11, Health
RP #11 on 11/18
Class presentation #5 on 11/20

Week 14: November 25
RP #12 on 11/25

Week 15: December 2, 4
Chapter 12, What's Next?

FINAL PROJECT DUE: TUESDAY, DECEMBER 9, 1997 AT 8:00 AM

FINAL PROJECT: In a neatly tabbed folder, include the following items:

1. A monthly calendar with important dates marked (exams, appointments, etc.).
2. List the other classes you are taking concurrently. What grades do you expect in those classes? What have you learned in this class that has helped you in those classes?
3. Sample note-taking pages from another class.
4. What personal contributions have you made to this class? What have you done to make the class better? Make a list of the strengths and weaknesses of this class.
5. Which student in this class had a positive impact on you? Explain why.
6. Write a short essay telling of: something you have learned or found personally useful from this class; something you especially enjoyed; and something you didn't like.
7. Discuss at least three strategies that you are using to communicate effectively.
8. Write a short essay describing your most memorable experience this semester.
9. Describe something creative you did this semester.
10. What are some specific health goals you have for yourself, now and in the future?
11. What do you expect to be doing in the next five years? Be specific.
12. How has this class or a technique covered here helped you in your present job or college career?
13. Response papers: What was the value of these assignments?
14. How close are you to becoming a Master Student? Suggest a grade for yourself based on your own honest assessment.

Appendix B

Response Paper Topics for the Experimental Group

RESPONSE PAPER TOPICS

1. Discuss your greatest personal strengths ... your greatest personal weaknesses.
2. What is the value to you personally of the resources at CNU?
3. What are the advantages of having friends attend CNU with you? Disadvantages?
4. Distinguish between the Republican and Democratic parties. Are you a Democrat, Republican, or other?
5. Discuss the pros and cons of capital punishment. Explain your position on the issue.
6. Discuss the issues on both sides of the abortion "great debate."
7. What conflicts or problems do you have in your life? Which ones did you create for yourself and which ones are primarily caused by persons or situations outside your responsibility and control?
8. Discuss the issue of assisted suicide. Would you consider that option for yourself? Someone you love? Why or why not?
9. Pick a social issue of your choice (but not one already presented in class), and discuss the opposing sides on the issue. What is your position? Why?
10. Your best friend has disclosed the he/she is a homosexual. How do you feel? If there are any implications for your friendship, what are they?
11. What do you regard as your greatest person achievement; you greatest personal failure? Why?
12. Write your own epitaph in fifteen words or less. Here lies...

Appendix C
Discussion Topics for the Experimental Group

Newspaper

Fred, a senior in high school, wanted to publish a mimeographed newspaper for students so that he could express many of his opinion. He wanted to speak out against the use of the military in international disputes and to speak out against some of the school's rules, like the rule forbidding boys to wear long hair.

When Fred started his newspaper, he asked his principal for permission. The principal said it would be all right if before every publication Fred would turn in all his articles for the principal's approval. Fred agreed and turned in several articles for approval. The principal approved all of them and Fred published two issues of the paper in the next two weeks.

But the principal had not expected that Fred's newspaper would receive so much attention. Students were so excited by the paper that they began to organize protests against the hair regulation and other school rules. Angry parents objected to Fred's opinions. They phoned the principal telling him that the newspaper was unpatriotic and should not be published. As a result of the rising excitement, the principal ordered Fred to stop publishing. He gave as a reason that Fred's activities were disruptive to the operation of the school.

Should the principal stop the newspaper?
Should stop it ___
Can't decide ___
Should not stop it ___

On the right, check the level of importance you give each item in making your decision.

	Great	Much	Some	Little	No
1. Is the principal more responsible to students or to parents?	___	___	___	___	___
2. Did the principal give his word that the newspaper could be published for a long time, or did he just promise to approve the newspaper one issue at a time?	___	___	___	___	___
3. Would the students start protesting even more if the principal stopped the newspaper?	___	___	___	___	___
4. When the welfare of the school is threatened, does the principal have the right to give orders to students?	___	___	___	___	___
5. Does the principal have the freedom of speech to say "No" in this case?	___	___	___	___	___
6. If the principal stopped the newspaper, would he be preventing full discussion of important problems?	___	___	___	___	___

7. Whether the principal's order would make Fred lose faith in the principal. ___ ___ ___ ___ ___

8. Whether Fred was really loyal to his school and patriotic to his country? ___ ___ ___ ___ ___

9. What effect would stopping the paper have on the student's education in critical thinking and judgment? ___ ___ ___ ___ ___

10. Whether Fred was in any way violating the rights of others in publishing his own opinions. ___ ___ ___ ___ ___

11. Whether the principal should be influenced by some angry parents when it is the principal who knows best what is going on in the school. ___ ___ ___ ___ ___

12. Whether Fred was using the newspaper to stir up hatred and discontent. ___ ___ ___ ___ ___

From the list of questions above, select the four most important:
Most important ___
Second most important ___
Third most important ___
Fourth most important ___

Escaped Prisoner

A man had been sentenced to prison for ten years. After one year, however, he escaped from prison, moved to a new area of the country, and took on the name of Thompson. For eight years he worked hard, and gradually he saved enough money to buy his own business. He was fair to his customers, gave his employees top wages, and gave most of his own profits to charity. Then one day Mrs. Jones, an old neighbor, recognized him as the man who had escaped from prison eight years before and for whom the police had been looking.

Should Mrs. Jones report Mr. Thompson to the police and have him sent back to prison?

Should report him ___
Can't decide ___
Should not report him ___

	Great	Much	Some	Little	No
1. Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person?	___	___	___	___	___
2. Every time someone escapes punishment for a crime, doesn't that just encourage more crime?	___	___	___	___	___

3.Wouldn't we be better off without prison and the oppression of our legal system? ___ ___ ___ ___ ___

4. Has Mr. Thompson really paid his debt to society? ___ ___ ___ ___ ___

5. Would society be failing what Mr. Thompson should fairly expect? ___ ___ ___ ___ ___

6. What benefits would prisons be apart from society, especially for a charitable man? ___ ___ ___ ___ ___

7. How could anyone be so cruel and heartless as to send Mr. Thompson to prison? ___ ___ ___ ___ ___

8.Would it be fair to all the prisoners who had to serve out their full sentences if Mr. Thompson was let off? ___ ___ ___ ___ ___

9. Was Mrs. Jones a good friend of Mr. Thompson? ___ ___ ___ ___ ___

10. Wouldn't it be a citizens's duty to report an escaped criminal, regardless of the circumstances? ___ ___ ___ ___ ___

11. How would the will of the people and the public good best be served. ___ ___ ___ ___ ___

12. Would going to prison do any good for Mr. Thompson or protect anybody? ___ ___ ___ ___ ___

From the list of questions above, select the four most important:
Most important ___
Second most important ___
Third most important ___
Fourth most important ___

Heinz and the Drug

In Europe a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost to make. He paid $200 for the radium and charged $2,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about $1,000, which is half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So Heinz got desperate and began to think about breaking into the man's store to steal the drug for his wife.

Should Heinz steal the drug for his wife?

Should steal it ___
Can't decide ___
Should not steal it ___

	Great	Much	Some	Little	No
1. Whether a community's laws are going to be upheld.	___	___	___	___	___
2. Isn't it only natural for a loving husband to care so much that he'd steal?	___	___	___	___	___
3. Is Heinz willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help?	___	___	___	___	___
4. Whether Heinz is a professional wrestler, or has considerable influence with professional wrestlers.	___	___	___	___	___
5. Whether Heinz is stealing for himself or doing this solely to help someone else.	___	___	___	___	___
6. Whether the druggist's rights to his invention have to be respected.	___	___	___	___	___
7. Whether the essence of living is more encompassing than the termination of dying, socially and individually.	___	___	___	___	___
8. What values are going to be the basis for governing how people act towards each other.	___	___	___	___	___
9. Whether the druggist is going to be allowed to hide behind a worthless law which only protects the rich anyhow.	___	___	___	___	___
10. Whether the law in this case is getting in the way of the most basic claim of any member of society.	___	___	___	___	___
11. Whether the druggist deserves to be robbed for being so greedy and cruel.	___	___	___	___	___
12. Would stealing in such a case bring about more total good for the whole society or not.	___	___	___	___	___

From the list of questions above, select the four most important:
Most important ___
Second most important ___
Third most important ___
Fourth most important ___

Exercise #28
Applying critical thinking to game shows

Select a television game show and watch it for one or more programs. Note the way the game is played, the kinds of questions asked, and the time allowed for responses. Also note background effects such as music, lights, or revolving wheels and any other significant details about the show.
Then analyze what you've seen. Ask these and any other relevant questions:

How intellectually demanding is the show?

What is the show's appeal to viewers?

What habits or attitudes could this show develop or reinforce in regular adult viewers? In children? Will these habits and attitudes help or hinder life in school, on the job, and at home?

Next, on a separate sheet of paper, write a composition of at least several paragraphs. Explain and support your reactions.

Exercise #29
Applying critical thinking to situation comedy

Select a television situation comedy and watch it for one or more programs. Then analyze what you saw. Ask these and other relevant questions:

How original was the story line? Can you remember any other show you've seen with a similar plot?

What attitudes and values did the show encourage? Do you share them?

Did the characters rise above stereotypes: the dumb blonde, the know-it-all teenager, and so on?

Would you have laughed if the show had no laugh track? How original were the jokes?

Next, on a separate sheet of paper, write a composition of at least several paragraphs. Explain and support your reactions.

Exercise #31
Thinking critically about talk shows

Skim the television talk show listings. Then select a show and watch it. Analyze what you saw, answering these and any other relevant questions:

What fields did the guests represent? Show business, education, particular professions, or others?

What was the reason each guest appeared on the show? An author may have published a new book, an actress starred in a just-released film, and so on.

What kinds of questions did the host ask? Professional questions? Personal questions?

What attitudes and values were encouraged? Do you share them?

How much time did the host allow for each answer? Did the guest have an opportunity to elaborate on answers? How much time was devoted to each guest?

How many times was the discussion interrupted by commercial breaks?

Next, write a composition of at least several paragraphs on a separate sheet of paper.
Focus on this question: How well would talk shows like this one prepare viewers for the probing discussions conducted in college classrooms?

Exercise #32
Thinking critically about newscasts

Watch the evening newscasts of the three major networks. Compare their presentation of the news. Ask these and any other relevant questions:

How much time, on the average, was given to each news story?

What details did the newscasters focus on? What questions did they pass over?
Did you want answers to any of these questions?

VALUES CLARIFICATION EXERCISE

Suppose you are a government decision maker in Washington DC, when World War III breaks out.

A fallout shelter under your administration in a remote Montana highland only contains enough space, air, food and water for six people for three months, but ten people wish to be admitted.

The ten have agreed by radio contact that for the survival of the human race you must decide which six of them shall be saved. You have exactly 30 minutes to make up your mind before Washington goes up in smoke. These are your choices:

1. A 16 year-old girl of questionable IQ, a high school drop out, pregnant.

2. A policeman with a gun (which cannot be taken from him), thrown off the force recently for brutality.

3. A clergyman, 75.

4. A woman physician, 36, known to be a confirmed racist.

5. A male violinist, 46, who served 7 years for pushing narcotics.

6. A 20 year old black militant, no special skills.

7. A former prostitute, female, 39.

8. An architect, a male homosexual.

9. A 26 year-old law student.

10. The law student's 25 year-old wife who spent the last nine months in a mental hospital, still heavily sedated. They refuse to be separated. (Volkmor, Pasnella, & Raths, 1977, p.1)

ALCOHOL USE QUIZ

1. About what percentage of adults in America drink Alcoholic beverage
   a) 95% b)70% c) 50% d) 33%

2. Alcohol is a stimulant.
   True or False?

3. About 15% of all drivers killed in alcohol-related accidents are teens.
   True or False?

4. About how many alcoholics are there estimated to be in the U.S.?
   a) 500,000 b) 5-6 million c) 9-10 million d) 15 million

5. Which of the following age groups has the highest incidence of fatal alcohol-related accidents?
   a) 18-24 b) 25-30 c) 31-37 d) 38-45

6. What percentage of alcoholics are "skid row bums?"
   a) 3-5% b) 13-15% c) 23-25% d) 33-35%

7. Most people can judge when they are too drunk to drive.
   True or False?

8. In most states, the blood alcohol level at which you are considered to be "under the influence" is:
   a) .05% b) .10% c) .12% d) 15%

9. Americans spend about as much on alcohol as they do on education.
   True or False?

10. Best estimates indicate that what percent of all highway fatalities are related to the use of alcoholic beverages?
    a) 80% b) 25% c) 50% d) 60%

11. Black coffee, walking, or a cold shower will sober a drunk up more quickly.
    True or False?

12. Alcohol is an aphrodisiac.
    True or False?

13. Which has the greatest amount of alcohol in it?
    a) 1 drink with 80 proof liquor b) one 12-ounce beer
    c) 1 four-ounce glass of wine d) all are the same

14. There are certain "warning signs" that can tell someone if they are having a problem with alcohol use.
    True or False?

ALCOHOL INFORMATION QUIZ

1) All kinds of food slow the rate of alcohol absorption into the blo equally well.
   True or False?

2) A carbonated mixer slows the absorption of alcohol into the bloods more than a non-carbonated mixer.
   True or False?

3) Serving non-alcoholic beverages and snacks one hour before a party ends will allow the blood alcohol concentration level of those who have been drinking at a reasonable rate to return to fairly safe levels for driving.
   True or False?

4) A person's weight affects how quickly they will become intoxicated.
   True or False?

5) A blood alcohol concentration level of .10% is the legal definition of alcohol intoxication in most states.
   True or False?

6) Estimates say that approximately one-half of the fatal highway accidents in this country involve a drinking driver.
   True or False?

7) List three actions you might take to prevent people who have had to much to drink from driving until they are sober.

[illegible]		[illegible]	[illegible] Analgesic, antitussive	Moderate	Moderate	Yes	3-6	Injected	[illegible] respiratory depression, constricted pupils, nausea	[illegible] breathing, clammy skin, convulsions, coma, possible death	yawning, loss of appetite, irritability, tremors, panic, cramps, nausea, chills and sweating
Heroin	I	Diacetylmorphine, Horse, Smack	None	High	High	Yes	3-6	Injected, sniffed, smoked			
Hydromorphone	II	Dilaudid	Analgesic	High	High	Yes	3-6	Oral, Injected			
Meperidine (Pethidine)	II	Demerol, Mepergan	Analgesic	High	High	Yes	3-6	Oral, Injected			
Methadone	II	Dolophine, Methadone, Methadose	Analgesic	High	High-Low	Yes	12-24	Oral, Injected			
Other Narcotics	I II III IV V	Numorphan, Percodan, Percocet, Tylox, Tussionex, Fentanyl, Darvon, Lomotil, Talwin[2]	Analgesic, antidiarrheal, antitussive	High-Low	High-Low	Yes	Variable	Oral, Injected			
DEPRESSANTS											
Chloral Hydrate	IV	Noctec	Hypnotic	Moderate	Moderate	Yes	5-8	Oral	Slurred speech, disorientation, drunken behavior without odor of alcohol	Shallow respiration, clammy skin, dilated pupils, weak and rapid pulse, coma, possible death	Anxiety, insomnia, tremors, delirium, convulsions, possible death
Barbiturates	II III IV	Amytal, Butisol, Fiorinal, Lotusate, Nembutal, Seconal, Tuinal, Phenobarbital	Anesthetic, anticonvulsant, sedative, hypnotic, veterinary euthanasia agent	High-Mod.	High-Mod.	Yes	1-16	Oral			
Benzodiazepines	IV	Ativan, Dalmane, Diazepam, Librium, Xanax, Serax, Valium, Tranxene, Verstran, Versed, Halcion, Paxipam, Restoril	Antianxiety, anticonvulsant, sedative, hypnotic	Low	Low	Yes	4-8	Oral			
Methaqualone	I	Quaalude	Sedative, hypnotic	High	High	Yes	4-8	Oral			
Glutethimide	III	Doriden	Sedative, hypnotic	High	Moderate	Yes	4-8	Oral			
Other Depressants	III IV	Equanil, Miltown, Noludar, Placidyl, Valmid	Antianxiety, sedative, hypnotic	Moderate	Moderate	Yes	4-8	Oral			
STIMULANTS											
Cocaine[1]	II	Coke, Flake, Snow, Crack	Local anesthetic	Possible	High	Yes	1-2	Sniffed, smoked, injected	Increased alertness, excitation, euphoria, increased pulse rate & blood pressure, insomnia, loss of appetite	Agitation, increase in body temperature, hallucinations, convulsions, possible death	Apathy, long periods of sleep, irritability, depression, disorientation
Amphetamines	II	Biphetamine, Delcobese, Desoxyn, Dexedrine, Obetrol	Attention deficit disorders, narcolepsy, weight control	Possible	High	Yes	2-4	Oral, injected			
Phenmetrazine	II	Preludin	Weight control	Possible	High	Yes	2-4	Oral, injected			
Methylphenidate	II	Ritalin	Attention deficit disorders, narcolepsy	Possible	Moderate	Yes	2-4	Oral, injected			
Other Stimulants	III IV	Adipex, Cylert, Didrex, Ionamin, Melfiat, Plegine, Sanorex, Tenuate, Tepanil, Prelu-2	Weight control	Possible	High	Yes	2-4	Oral, injected			
HALLUCINOGENS											
LSD	I	Acid, Microdot	None	None	Unknown	Yes	8-12	Oral	Illusions and hallucinations, poor perception of time and distance	Longer, more intense "trip" episodes, psychosis, possible death	Withdrawal syndrome not reported
Mescaline and Peyote	I	Mesc, Buttons, Cactus	None	None	Unknown	Yes	8-12	Oral			
Amphetamine Variants	I	2,5-DMA, PMA, STP, MDA, MDMA, TMA, DOM, DOB	None	Unknown	Unknown	Yes	Variable	Oral, injected			
Phencyclidine	II	PCP, Angel Dust, Hog	None	Unknown	High	Yes	Days	Smoked, oral, injected			
Phencyclidine Analogues	I	PCE, PCPy, TCP	None	Unknown	High	Yes	Days	Smoked, oral, injected			
Other Hallucinogens	I	Bufotenine, Ibogaine, DMT, DET, Psilocybin, Psilocyn	None	None	Unknown	Possible	Variable	Smoked, oral, injected, sniffed			
CANNABIS											
Marijuana	I	Pot, Acapulco Gold, Grass, Reefer, Sinsemilla, Thai Sticks	None	Unknown	Moderate	Yes	2-4	Smoked, oral	Euphoria, relaxed inhibitions, increased appetite, disoriented behavior	Fatigue, paranoia, possible psychosis	Insomnia, hyperactivity, and decreased appetite occasionally reported
Tetrahydrocannabinol	I II	THC, Marinol	Cancer chemotherapy antinauseant	Unknown	Moderate	Yes	2-4	Smoked, oral			
Hashish	I	Hash	None	Unknown	Moderate	Yes	2-4	Smoked, oral			
Hashish Oil	I	Hash Oil	None	Unknown	Moderate	Yes	2-4	Smoked, oral			

Designated a narcotic under the CSA   Not designated a narcotic under the CSA

RANK ORDER YOUR CHOICES:

1. You have only one parent and he or she is getting very old, and somewhat senile. You have your personal responsibilities toward your own family and spouse. What would you do?

____ make arrangements to have your parent transferred to a nursing home nearby
____ provide a small apartment or some other independent living situation
____ make provision in your own home and invite your parent to share living arrangements

2. Your brother and sister-in-law are having serious marital problems, problems which neither of them can resolve. What would you like them to do?

____ initiate legal action for a divorce
____ mutually agree to a separation and take responsibility for the children on a rotating basis
____ in spite of the estranged nature of their relationship, stay together for the good of the children

3. Your birthday is coming up next week. What would you like your husband or wife to give to you on this occasion?

____ twenty five dollars to purchase your own gift
____ a twenty five dollar present of his or her own selection
____ a gift that was specially made by him or her for you

4. Your best friend has spent a great deal of time selecting a present for you. He or she personally gave it to you. You realize all this, but really do not like the present. What would you do?

____ take the present back to the store for credit for the future without telling your friend
____ say thank you and keep the present without giving any indication of your real feelings
____ tell your friend that you appreciate his or her thoughtfulness, but that you honestly don't like it

5. You are scanning the job market for employment. Which of the following positions would you prefer?

____ mentally easy but physically exhausting and dirty work for $500 a week salary, no challenge involved
____ difficult, long hours of clean work for $500 a week salary
____ pleasant but simple work for $300 a week salary

6. A close relative just surprised you by giving you a gift of $300. What would you do with it?

____ deposit it in your savings account immediately
____ take a much desired trip
____ throw a big party for your friends

7. You consider yourself a good, religious person. It is Sunday morning. what would you do that would most express your religious beliefs?

____ play some of your classical, religious music on the stereo
____ go to church to hear a moving sermon by the minister
____ prepare for a big noon brunch for the whole family

8. The population problem is very serious and involves every country on this planet. What steps would you encourage to help resolve the problem?

____ volunteer to organize birth control information centers throughout the country
____ join a pro-abortion lobbying group
____ encourage the limitation of 2 children per family and have the parents sterilized to prevent future births

9. Imagine that you are all alone on an island in the South Pacific. Which would you want to have along?

____ the Encyclopedia Britannica
____ the Holy Bible
____ the writings of William Shakespeare

10. If you were just informed that you were to receive a large inheritance, how do you think you would spend it?

____ on various educational endeavors
____ take a first-class trip around the world
____ on personal preferences and the entertainment circuit

11. If you had to make a choice, which of the following would you most not want to be?

____ paraplegic
____ deaf and mute
____ blind

12. What would you feel most capable of doing?

____ being a community organizer in an inner-city neighborhood
____ spending at least 2 years in the US Peace Corps
____ donating 5% of your income to charitable causes

Appendix D
Syllabus for the Comparison Group and Outline

COLLEGE STUDIES 101
THE COLLEGE EXPERIENCE: BECOMING A MASTER STUDENT
FALL SEMESTER 1997

Instructor: Cynthia Loiacono, Ed.S.
Office: Ferguson (English Department) **Phone:** 594-7032
Office Hours: By appointment

COURSE DESCRIPTION: This course is designed to teach you how to have a successful college experience both academically and personally. The focus will be on the development of practical knowledge and skills to assist you toward that goal. Topics include time-management, test-taking, communication skills, study techniques, campus resources and managing the personal issues that face many college students.

REQUIRED TEXTBOOK: Becoming a Master Student, 8th Edition, by David B. Ellis. Published by College Survival, Inc.

OBJECTIVES: Upon completion of this course, you will be able to:
1. Describe how you are responsible for, and can create a successful college experience.
2. List and describe the specific methods to:
   A. Improve ability to recall information
   B. Manage time more effectively
   C. Read a textbook with improved retention
   D. Prepare for and take tests
   E. Present reports, both written and oral
   F. Listen to and comprehend a lecture
   G. Apply creative and critical thinking skills
3. Utilize a model of communication that facilitates interactions with friends, family and instructors which is helpful to the learning process.
4. Match resources that are available on campus and in the community that can assist you with problems related to health, academics, relationships, discrimination, substance abuse, library research, financial aid, social issues, etc.
5. Be able to report to fellow students and the instructor, both orally and in written form, the current experiences of college life.
6. List several guidelines for making plans that effectively promote success.

TEACHING STRATEGIES: The objectives of this course will be achieved by lectures, class discussions, small group discussions, individual and group exercises, guest lectures, and assignments outside of class.

EVALUATIONS AND GRADING:

ATTENDANCE AND PARTICIPATION: Your success in this course will depend in large measure on the interest and enthusiasm that you and your classmates bring to the experience. This course is interactive in nature, therefore, attendance and participation are essential. **If, FOR ANY REASON, you must miss a class, please call my office or tell me in person prior to your expected absence.** It is your responsibility to make up any missed work or assignments. Arriving late and leaving early are disruptive to the class and preclude active participation, so neither is acceptable.

QUIZZES: There will be 10 quizzes given during the semester, each quiz is worth 20 points. The quizzes may contain questions covering the content of the class, the reading assignments, evaluation of the class, and a section to share experiences related to college.

CLASS PRESENTATION: You will work with an assigned group of 2 or more to present a program to the class related to the current material.

GRADING:

Quizzes (10 @ 20 points each)	200
Class Presentation *	70
Attendance and Participation	70
Final Project *	160
TOTAL	500

* Missing these activities results in failing the course.

GRADING SCALE:

A 480-500 pts.	A- 460-479 pts.	
B+ 440-459 pts.	B 420-439 pts.	B- 400-419 pts.
C+ 380-399 pts.	C 360-379 pts.	C- 340-359 pts.
D 300-339 pts.	F 299 pts. and below	

OUTLINE OF COURSE:

Week 1: August 26, 28
Chapter 1, First Step

Week 2: September 2, 4
Chapter 2, Time
Quiz #1 (Time) on 9/4

Week 3: September 9, 11
Resources

Week 4: September 16, 18
Chapter 7, Diversity
Quiz #2 (Diversity) on 9/18

Week 5: September 23, 25
Chapter 3, Memory
Quiz #3 (Memory) on 9/25

Week 6: September 30, October 2
Chapter 4, Reading
Quiz #4 (Reading) on 10/2

Week 7: October 7, 9
Chapter 5, Notes
Quiz #5 (Notes) on 10/9

Fall Break (no class on 10/14).

Week 8: October 16
Chapter 6, Tests
Quiz #6 (Tests) on 10/16

Week 9: October 21, 23
Chapter 8, Thinking
Quiz #7 (Thinking) on 10/23
Class presentation #1 on 10/23

Week 10: October 28, 30
Chapter 9, Writing
Quiz #8 (Writing) on 10/30
Class presentation #2 on 10/30

Week 11: November 4, 6
Chapter 10, Relationships
Class presentation #3 on 11/6

Week 12: November 11, 13
Chapter 10, Relationship
Quiz #9 (Relationships) on 11/13
Class presentation #4 on 11/13

Week 13: November 18, 20
Chapter 11, Health
Class presentation #5 on 11/20

Week 14: November 25
Chapter 11, Health
Quiz #12 on 11/25

Week 15: December 2, 4
Chapter 12, What's Next?

FINAL PROJECT DUE: THURSDAY, DECEMBER 11, 1997 AT 8:00 AM

FINAL PROJECT: In a neatly tabbed folder, include the following items:

1. A monthly calendar with important dates marked (exams, appointments, etc.).
2. List the other classes you are taking concurrently. What grades do you expect in those classes? What have you learned in this class that has helped you in those classes?
3. Sample note-taking pages from another class.
4. What personal contributions have you made to this class? What have you done to make the class better? Make a list of the strengths and weaknesses of this class.
5. Which student in this class had a positive impact on you? Explain why.
6. Write a short essay telling of: something you have learned or found personally useful from this class; something you especially enjoyed; and something you didn't like.
7. Discuss at least three strategies that you are using to communicate effectively.
8. Write a short essay describing your most memorable experience this semester.
9. Describe something creative you did this semester.
10. What are some specific health goals you have for yourself, now and in the future?
11. What do you expect to be doing in the next five years? Be specific.
12. How has this class or a technique covered here helped you in your present job or college career?
13. Response papers: What was the value of these assignments?
14. How close are you to becoming a Master Student? Suggest a grade for yourself based on your own honest assessment.

OUTLINE

Week 1 - First Step
Session 1 - Tuesday, 8/26/97, 8:00 AM

1. Review the course syllabus.

2. Name tag exercise - 4x6 card; name in middle;
   upper right corner: a place you would like to visit
   upper left corner: 2 things you are good at
   lower right corner: 2 things you like to do
   lower left corner: 2 favorite foods
   pair up; explain each card for one minute; introduce each other

3. Review informed consent

4. Survey of Study Habits and Attitudes

Session 2 - 8/28

1. Learning Environment Preferences

2. Paragraph Completion Method

Week 2 - Time
Session 1 - 9/2

1. Lecture on time management.

2. Calendars to schedule time for activities.

Session 2 - 9/4

1. Needs Wheel - Making time for things that are important but not urgent. (Pg. 49, #21)
   Have students fill out wheel; what percentage of their time is given to each area, then brainstorm ways that a person could do more in each area.

2. Quiz on Time.

Week 3 - Resources
Session 1 - 9/9
1. Tour of the library

Session 2 9/11

1. Tour of the Counseling Center

Week 4 - Diversity
Session 1 - 9/16

1. Lecture on Diversity

2. "The Eye of the Storm" video.

Session 2 - 9/18

1. Stereotype Exploration exercise.

2. Talk About Prejudice exercise.

3. Quiz on Diversity.

4. Handout Response Paper (Graduated from CNU...)

Week 5 - Memory
Session 1 - 9/23

1. Lecture on memory.

2. Memory exercise.

3. Lemon exercise.

Session 2 - 9/25

1. The Memory Story exercise.

2. Testing memory skills exercise.

3. Quiz on memory.

Week 6 - Reading
Session 1 - 9/30

1. Lecture on reading.

2. Reading for Comprehension exercise.

Session 2 - 10/2

1. Drawing Conclusions exercise.

2. Bring in editorials from newspapers. Each student gives a brief synopsis of the editorial and states the assumptions of the writer.

3. Quiz on reading.

Week 7 - Notes
Session 1 - 10/7

1. Lecture on notes

2. Show 8-10 minutes of a video - students takes notes using a particular method. Discuss what they learned, what they missed, etc.

Session 2 - 10/9

1. Head Coaches exercise.

2. Quiz on notes.

Week 8 - Tests
Session 1 - 10/16

1. Lecture on tests.

2. Group Quiz exercise.

3. Quiz on tests.

Week 9 - Thinking
Session 1 - 10/21

1. Lecture on thinking.

2. Values Clarification exercise.

Session 2 - 10/23

1. Class presentation #1.

2. "Killing Us Softly" video.

3. Quiz on thinking.

Week 10 - Writing
Session 1 - 10/28

1. Lecture on writing.

2. Strange Sentences exercise.

3. Police Department Statements exercise.

Session 2 - 10/30

1. Speaker from writing center.

2. Class presentation #2.

3. Quiz on writing.

Week 11 - Relationships
Session 1 - 11/4

1. Lecture on relationships.

2. Communication exercise with blocks.

Session 2 - 11/6

1. Class presentation #3.

2. Rank Order Your Choices exercise.

Week 12 - Relationships
Session 1 - 11/11

1. Community AIDS Educator.

Session 2 - 11/13

1. Class presentation #4.

2. Quiz on relationships.

Week 13 - Health
Session 1 - 11/18

1. Lecture on health.

2. Alcohol Information Quiz.

3. Alcohol Use Quiz.

Session 2 - 11/20

1. Class presentation #5.

2. Paragraph Completion Method.

3. Survey of Study Habits and Attitudes.

Week 14 - Health
Session 1 - 11/25

1. Learning Environment Preferences.

2. Quiz on health.

Week 15 - What's Next?
Session 1 - 12/2

1. Lecture on choosing a major and planning for the future.

2. Instructor evaluations.

Session 2 - 12/4

1. Informal feedback from class.

Appendix E
Informed Consent Form

INFORMED CONSENT

1. The purpose of this study is to evaluate the effectiveness of this study skills course in assisting students in the development of critical thinking and study skills in order to enhance their ability to succeed in college.

2. You may choose not to participate in this study by taking this course at another time. Should you choose to participate, you will be asked to complete all of the assessments at the beginning and the end of the semester, and you will also be asked to complete a demographics questionnaire. You may withdraw from this study at any time.

3. The assessments and the demographics questionnaire will be confidential and identified by a code that you will choose for instrument matching purposes. The study results will report class averages rather than individual scores and NO identifying information will be reported. The assessment will not comprise a part of your grade.

4. You may request that your results be made available to you but you must disclose your identification code to the researcher. The researcher will maintain the confidentiality of your results. You will need to schedule an appointment with the researcher to discuss your results.

5. You may receive a copy of the results of this study upon written request.

PLEASE <u>COMPLETE</u> AND <u>SIGN</u>

I, _____ have read the above information and fully
(Print Name)
understand my rights and the terms and conditions of my participation or non-participation in this study.

_____
Signature

_____
Date

Appendix F
Demographics Questionnaire

Code (for instrument matching purposes): _____

QUESTIONNAIRE

Age (in years): _____

Gender: Male: _____ Female: _____

Race:

_____ African American

_____ Asian American

_____ Caucasian

_____ Latin American/Hispanic

_____ Native American/Pacific Islander

_____ Multiracial

Marital Status:

_____ Never Married

_____ Married

_____ Unmarried (living in a committed relationship)

_____ Divorced

_____ Separated

_____ Widowed

Educational Level: _____ High School Diploma _____ GED

_____ Number of credit hours earned

Student Status: _____ Full-Time _____ Part-Time

Living arrangements: _____ Residence Hall _____ Apartment _____ Parents

Reason for taking this course: _____ Required _____ Elective _____On probation

Appendix G
Learning Environment Preferences

LEARNING ENVIRONMENT PREFERENCES

This survey asks you to describe what you believe to be the most significant issues in your **IDEAL** LEARNING ENVIRONMENT. Your opinions are important to us as we study teaching and learning concerns in college. We ask, therefore, that you take this task seriously and give your responses some thought. We appreciate your cooperation in sharing what you find most important in a learning environment.

The survey consists of five sections, each representing a different aspect of learning environments. In each section, you are presented with a list of specific statements about that particular area. Try not to focus on a specific class or classes as you think about these items; focus on their significance in an *ideal* learning environment *for you.*

We ask that you do two things for each area:

• First, please **rate** each statement in the area in terms of its significance or importance to your learning using the scale below.

• Once you've rated all of the items in a section, go back through the list and **rank** the three items most significant to you as you think about your ideal learning environment.

Please mark your answers on the separate answer sheet provided, and be sure to indicate both your ratings of individual items **and** your ranking of the top 3 items in each section. It is very important that you indicate your top three choices for each question area by writing the **ITEM NUMBER** in the spaces provided (1st choice, 2nd choice, 3rd choice) at the bottom of the answer sheet.

Before you begin, we ask that you provide us with the background information requested at the top of the answer sheet. This information will be used to examine group differences; your name or social security number may be used at some point in the future if a follow-up survey is required. AT NO TIME WILL THIS INFORMATION BE USED TO REPORT YOUR INDIVIDUAL RESPONSES TO ANYONE BUT YOU; ALL SURVEYS WILL BE KEPT CONFIDENTIAL. Again, thank you very much for sharing with us your ideas about learning.

 CSID

1

DOMAIN ONE:
COURSE CONTENT/VIEW OF LEARNING

MY IDEAL LEARNING ENVIRONMENT WOULD:

1. Emphasize basic facts and definitions.
2. Focus more on having the right answers than on discussing methods or how to solve problems.
3. Insure that I get all the course knowledge from the professor.
4. Provide me with an opportunity to learn methods and solve problems.
5. Allow me a chance to think and reason, applying facts to support my opinions.
6. Emphasize learning simply for the sake of learning or gaining new expertise.
7. Let me decide for myself whether issues discussed in class are right or wrong, based on my own interpretations and ideas.
8. Stress the practical applications of the material.
9. Focus on the socio-psycho, cultural and historical implications and ramifications of the subject matter.
10. Serve primarily as a catalyst for research and learning on my own, integrating the knowledge gained into my thinking.
11. Stress learning and thinking on my own, not being spoonfed learning by the instructor.
12. Provide me with appropriate learning situations for thinking about and seeking personal truths.
13. Emphasize a good positive relationship among the students and between the students and teacher.

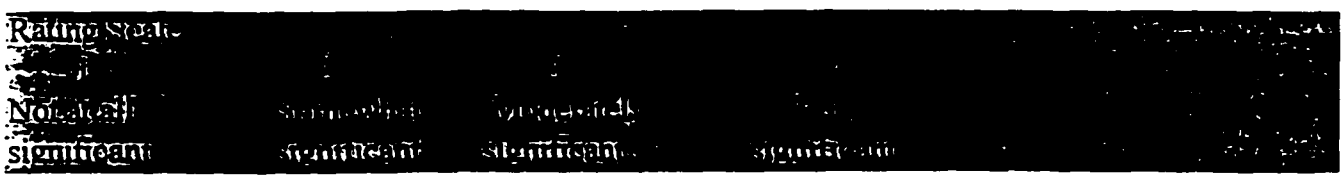
AFTER YOU HAVE RATED ALL OF THE ITEMS, PLEASE BE SURE TO REVIEW THE WHOLE SET AND MARK YOUR THREE MOST SIGNIFICANT ITEMS **(BY ITEM NUMBER)** IN THE SECTION AT THE BOTTOM OF THE ANSWER SHEET.

ROLE OF INSTRUCTOR

IN MY IDEAL LEARNING ENVIRONMENT, THE TEACHER WOULD:

1. Teach me all the facts and information I am supposed to learn.
2. Use up-to-date textbooks and materials and teach from them, not ignore them.
3. Give clear directions and guidance for all course activities and assignments.
4. Have only a minimal role in the class, turning much of the control of course content and class discussions over to the students.
5. Be not just an instructor, but more an explainer, entertainer and friend.
6. Recognize that learning is mutual--individual class members contribute fully to the teaching and learning in the class.
7. Provide a model for conceptualizing living and learning rather than solving problems.
8. Utilize his/her expertise to provide me with a critique of my work.
9. Demonstrate a way to think about the subject matter and then help me explore the issues and come to my own conclusions.
10. Offer extensive comments and reactions about my performance in class(papers, exams, etc.).
11. Challenge students to present their own ideas, argue with positions taken, and demand evidence for their beliefs.
12. Put a lot of effort into the class, making it interesting and worthwhile.
13. Present arguments on course issues based on his/her expertise to stimulate active debate among class members.

AFTER YOU HAVE RATED ALL OF THE ITEMS, PLEASE BE SURE TO REVIEW THE WHOLE SET AND MARK YOUR THREE MOST SIGNIFICANT ITEMS **(BY ITEM NUMBER)** IN THE SECTION AT THE BOTTOM OF THE ANSWER SHEET.



ROLE OF STUDENT/PEERS

IN MY IDEAL LEARNING ENVIRONMENT, AS A STUDENT I WOULD:

1. Study and memorize the subject matter--the teacher is there to teach it.
2. Take good notes on what's presented in class and reproduce that information on the tests.
3. Enjoy having my friends in the class, but other than that classmates don't add much to what I would get from a class.
4. Hope to develop my ability to reason and judge based on standards defined by the subject.
5. Prefer to do independent research allowing me to produce my own ideas and arguments.
6. Expect to be challenged to work hard in the class.
7. Prefer that my classmates be concerned with increasing their awareness of themselves to others in relation to the world.
8. Anticipate that my classmates would contribute significantly to the course learning through their own expertise in the content.
9. Want opportunities to think on my own, making connections between the issues discussed in class and other areas I'm studying.
10. Take some leadership, along with my classmates, in deciding how the class will be run.
11. Participate actively with my peers in class discussions and ask as many questions as necessary to fully understand the topic.
12. Expect to take learning seriously and be personally motivated to learn the subject.
13. Want to learn methods and procedures related to the subject--learn how to learn.

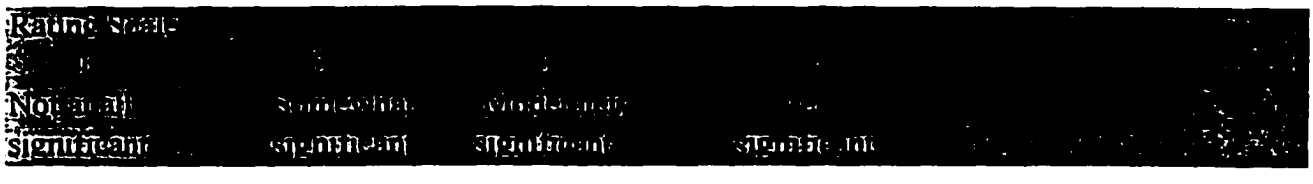
AFTER YOU HAVE RATED ALL OF THE ITEMS, PLEASE BE SURE TO REVIEW THE WHOLE SET AND MARK YOUR THREE MOST SIGNIFICANT ITEMS **(BY ITEM NUMBER)** IN THE SECTION AT THE BOTTOM OF THE ANSWER SHEET.

CLASSROOM ATMOSPHERE/ACTIVITIES

IN MY IDEAL LEARNING ENVIRONMENT, THE CLASSROOM ATMOSPHERE AND ACTIVITIES WOULD:

1. Be organized and well-structured--there should be clear expectations set (like a structured syllabus that's followed).
2. Consist of lectures(with a chance to ask questions) because I can get all the facts I need to know more efficiently that way.
3. Include specific, detailed instructions for all activities and assignments.
4. Focus on step-by-step procedures so that if you did the procedure correctly each time, your answer would be correct.
5. Provide opportunities for me to pull together connections among various subject areas and then construct an adequate argument.
6. Be only loosely structured, with the students themselves taking most of the responsibility for what structure there is.
7. Include research papers, since they demand that I consult sources and then offer my own interpretation and thinking.
8. Have enough variety in content areas and learning experiences to keep me interested.
9. Be practiced and internalized but be balanced by group experimentation, intuition, comprehension, and imagination.
10. Consist of a seminar format, providing an exchange of ideas so that I can critique my own perspectives on the subject matter.
11. Emphasize discussions of personal answers based on relevant evidence rather than just right and wrong answers.
12. Be an intellectual dialogue and debate among a small group of peers motivated to learn for the sake of learning.
13. Include lots of projects and assignments with practical, everyday applications.

AFTER YOU HAVE RATED ALL OF THE ITEMS, PLEASE BE SURE TO REVIEW THE WHOLE SET AND MARK YOUR THREE MOST SIGNIFICANT ITEMS **(BY ITEM NUMBER)** IN THE SECTION AT THE BOTTOM OF THE ANSWER SHEET.

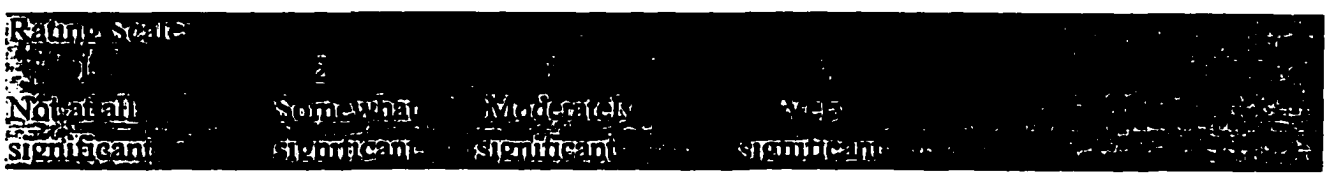


EVALUATION PROCEDURES

EVALUATION PROCEDURES IN MY IDEAL LEARNING ENVIRONMENT WOULD:

1. Include straightforward, not "tricky," tests, covering only what has been taught and nothing else.
2. Be up to the teacher, since s/he knows the material best.
3. Consist of objective-style tests because they have clearcut right or wrong answers.
4. Be based on how much students have improved in the class and on how hard they have worked in class.
5. Provide an opportunity for me to judge my own work along with the teacher and learn from the critique at the same time.
6. Not include grades, since there aren't really any objective standards teachers can use to evaluate students' thinking.
7. Include grading by a prearranged point system(homework, participation, tests, etc.), since I think it seems the most fair.
8. Represent a synthesis of internal and external opportunities for judgement and learning enhancing the quality of the class.
9. Consist of thoughtful criticism of my work by someone with appropriate expertise.
10. Emphasize essay exams, papers, etc. rather than objective-style tests so that I can show how much I've learned.
11. Allow students to demonstrate that they can think on their own and make connections not made in class.
12. Include judgments of the quality of my oral and written work as a way to enhance my learning in the class.
13. Emphasize independent thinking by each student, but include some focus on the quality of one's arguments and evidence.

AFTER YOU HAVE RATED ALL OF THE ITEMS, PLEASE BE SURE TO REVIEW THE WHOLE SET AND MARK YOUR THREE MOST SIGNIFICANT ITEMS **(BY ITEM NUMBER)** IN THE SECTION AT THE BOTTOM OF THE ANSWER SHEET.



LEARNING ENVIRONMENT PREFERENCES ANSWER SHEET

NAME (optional):_____ DATE:_____
SOCIAL SECURITY NO. (or Student ID):_____
SEX (check one): Male___ Female___ AGE:_____
ETHNIC HERITAGE(optional): _____
CLASSIFICATION (check one): Frosh____ Soph___ Jr.___ Sr____ Grad___
MAJOR (If undeclared, please indicate):_____

Rating Scale:			
1	2	3	4
Not at all significant	Somewhat significant	Moderately significant	Very significant

DOMAIN: **COURSE CONTENT/VIEW OF LEARNING** (INDICATE RATING, 1-4)

1.____ 2.____ 3.____ 4.____ 5.____ 6.____ 7.____

8.____ 9.____ 10.____ 11.____ 12.____ 13.____

DOMAIN: **ROLE OF INSTRUCTOR** (INDICATE RATING, 1-4)

1.____ 2.____ 3.____ 4.____ 5.____ 6.____ 7.____

8.____ 9.____ 10.____ 11.____ 12.____ 13.____

DOMAIN: **ROLE OF STUDENT/PEERS** (INDICATE RATING, 1-4)

1.____ 2.____ 3.____ 4.____ 5.____ 6.____ 7.____

8.____ 9.____ 10.____ 11.____ 12.____ 13.____

DOMAIN: **CLASSROOM ATMOSPHERE** (INDICATE RATING, 1-4)

1.____ 2.____ 3.____ 4.____ 5.____ 6.____ 7.____

8.____ 9.____ 10.____ 11.____ 12.____ 13.____

DOMAIN: **EVALUATION PROCEDURES** (INDICATE RATING, 1-4)

1.____ 2.____ 3.____ 4.____ 5.____ 6.____ 7.____

8.____ 9.____ 10.____ 11.____ 12.____ 13.____

INDICATE TOP THREE CHOICES IN EACH AREA (MARK ITEM NUMBER)

COURSE CONTENT	ROLE OF INSTRUCTOR	ROLE OF STUDENT/PEERS	CLASSROOM ATMOSPHERE	EVALUATION PROCEDURES
1ST_____	1ST_____	1ST_____	1ST_____	1ST_____
2ND_____	2ND_____	2ND_____	2ND_____	2ND_____
3RD_____	3RD_____	3RD_____	3RD_____	3RD_____

 CSID

Appendix H
Survey of Study Habits and Attitudes

Form C

GRADES 12-14

SSHA

Survey of Study Habits and Attitudes

Brown—Holtzman

Do not open this booklet until you are told to do so. Wait for the examiner's instructions.

DO NOT MAKE ANY MARKS IN THIS BOOKLET

THE PSYCHOLOGICAL CORPORATION®
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Orlando • Boston • New York • Chicago • San Francisco • Atlanta • Dallas
San Diego • Philadelphia • Austin • Fort Worth • Toronto • London • Sydney

3-951005

DIRECTIONS

The purpose of this survey is to furnish an inventory of study habits and attitudes to serve as a foundation for self-improvement. If taken seriously, this inventory can help you obtain a better understanding of how to study properly. If you will honestly and thoughtfully mark all of the statements on the pages that follow, you will be able to learn many of your study faults. The value of this survey to you will be in direct proportion to the care with which you mark each statement. Since your answers will be treated with the strictest confidence, feel free to answer all questions frankly.

You will mark your answers on a separate answer sheet. Make no marks on this booklet. There are 100 statements in this questionnaire. For each statement a five-point scale is provided for indicating whether you rarely, sometimes, frequently, generally, or almost always do or feel as the statement suggests. You are to rate yourself on each statement by marking the space on your answer sheet that represents your answer choice. Thus, for example, you would mark space R on your answer sheet if you *rarely* follow the procedure described or if you feel that the statement is *rarely* true for you. In marking your answers, be sure that the number of the statement agrees with the number on the answer sheet. Make sure that your marks are heavy and black. Make no stray marks on the answer sheet and erase completely any mark that you wish to change.

To aid you in answering this questionnaire, the terms have been defined on a percentage basis as follows:

R - RARELY means from 0 to 15 per cent of the time.
S - SOMETIMES means from 16 to 35 per cent of the time.
F - FREQUENTLY means from 36 to 65 per cent of the time.
G - GENERALLY means from 66 to 85 per cent of the time.
A - ALMOST ALWAYS means from 86 to 100 per cent of the time.

Remember, you are asked to rate yourself, not in accordance with what you think you *should* do or feel, or as you think *others* might do or feel, but as you yourself are in the habit of doing and feeling. When you cannot answer a statement on the basis of actual experience, mark the statement according to what you would be most likely to do if the situation should arise.

There are no "right" or "wrong" answers to these statements, and there is no time limit for this questionnaire. Work as rapidly as you can without being careless, and do not spend too much time on any one statement. Please do not omit any of the statements.

R—RARELY S—SOMETIMES F—FREQUENTLY G—GENERALLY A—ALMOST ALWAYS

1. When my assigned homework is extra long or unusually difficult, I either quit in disgust or study only the easier parts of the lesson.
2. In preparing reports, themes, term papers, etc., I make certain that I clearly understand what is wanted before I begin work.
3. I feel that teachers lack understanding of the needs and interests of students.
4. My dislike for certain teachers causes me to neglect my school work.
5. When I get behind in my school work for some unavoidable reason, I make up back assignments without prompting from the teacher.
6. Difficulty in expressing myself in writing slows me down on reports, themes, examinations, and other work to be turned in.
7. My teachers succeed in making their subjects interesting and meaningful to me.
8. I feel that I would study harder if I were given more freedom to choose courses that I like.
9. Daydreaming about dates, future plans, etc., distracts my attention from my lessons while I am studying.
10. My teachers criticize my written reports as being hastily written or poorly organized.
11. I feel that teachers allow their personal like or dislike for a student to influence their grading unduly.
12. Even though I don't like a subject, I still work hard to make a good grade.
13. Even though an assignment is dull and boring, I stick to it until it is completed.
14. I give special attention to neatness on themes, reports, and other work to be turned in.
15. I believe that the easiest way to get good grades is to agree with everything your teachers say.
16. I lose interest in my studies after the first few days of a new semester.
17. I keep all the notes for each subject together, carefully arranging them in some logical order.
18. I memorize grammatical rules, definitions of technical terms, formulas, etc., without really understanding them.
19. I think that teachers like to exercise their authority too much.
20. I believe that teachers truly want their students to like them.
21. When I am having difficulty with my school work, I try to talk over the trouble with the teacher.
22. I hesitate to ask a teacher for further explanation of an assignment that is not clear to me.
23. I feel that teachers are too rigid and narrow-minded.
24. I feel that students are not given enough freedom in selecting their own topics for themes and reports.
25. I lay aside returned examinations, reports, and homework assignments without bothering to correct errors noted by the instructor.
26. I get nervous and confused when taking an examination and fail to answer questions to the best of my ability.
27. I think that teachers expect students to do too much studying outside of class.
28. Lack of interest in my school work makes it difficult for me to keep my attention focused on assigned reading.
29. I keep my place of study business-like and cleared of unnecessary or distracting items such as pictures, letters, mementos, etc.
30. I have trouble with the mechanics of English composition.
31. When explaining a lesson or answering questions, my teachers use words that I do not understand.
32. Unless I really like a course, I believe in doing only enough to get a passing grade.
33. Telephone calls, people coming in and out of my room, "bull-sessions" with my friends, etc., interfere with my studying.

GO ON TO THE NEXT PAGE.

R—RARELY S—SOMETIMES F—FREQUENTLY G—GENERALLY A—ALMOST ALWAYS

34. In taking notes, I tend to take down material which later turns out to be unimportant.

35. My teachers fail to give sufficient explanation of the materials they are trying to teach.

36. I feel confused and undecided as to what my educational and vocational goals should be.

37. It takes a long time for me to get warmed up to the task of studying.

38. I do poorly on tests because I find it hard to think clearly and plan my work within a short period of time.

39. I feel that teachers are overbearing and conceited in their relations with students.

40. Some of my courses are so uninteresting that I have to "force" myself to do the assignments.

41. I am unable to concentrate well because of periods of restlessness, moodiness, or "having the blues."

42. I skip over the figures, graphs, and tables in a reading assignment.

43. I believe that teachers secretly enjoy giving their students a "hard time."

44. I believe that having a good time and getting one's full share of fun out of life is more important than studying.

45. I put off writing themes, reports, term papers, etc., until the last minute.

46. After reading several pages of an assignment, I am unable to recall what I have just read.

47. I think that teachers tend to talk too much.

48. I believe that teachers tend to avoid discussing present-day issues and events with their classes.

49. When I sit down to study I find myself too tired, bored, or sleepy to study efficiently.

50. I have difficulty in picking out the important points of a reading assignment—points that later appear on examinations.

51. I feel that teachers try to distribute their atte tion and assistance equally among all the students.

52. I feel that my grades are a fairly accurate refle tion of my ability.

53. I waste too much time talking, reading mag zines, listening to the radio, watching TV, goin to the movies, etc., for the good of my studie

54. When in doubt about the proper form for written report, I refer to an approved model t provide a guide to follow.

55. The illustrations, examples, and explanatior given by my teachers are too dry and technica

56. I feel that it is not worth the time, money, an effort that one must spend to get a college edu cation.

57. My studying is done in a random, unplanne manner—is impelled mostly by the demand of approaching classes.

58. When reading a long textbook assignment, stop periodically and mentally review the mai points that have been presented.

59. I feel that teachers tend to be sarcastic toward their poorer students and to ridicule their mistake excessively.

60. Some of my classes are so boring that I spen the class period drawing pictures, writing let ters, or daydreaming instead of listening to th teacher.

61. "Extracurricular activities"—dating, clubs, ath letics, fraternity and sorority activities, etc.— cause me to get behind in my school work.

62. I seem to accomplish very little in relation t the amount of time I spend studying.

63. I feel that teachers make their courses too diffi cult for the average student.

64. I feel that I am taking courses that are of littl practical value to me.

65. I utilize the vacant hours between classes fo studying so as to reduce the evening's work

66. I can concentrate on a reading assignment fo only a short while before the words become a meaningless jumble.

67. I think that football coaches contribute more t school life than do the teachers.

GO ON TO THE NEXT PAGE.

R—RARELY S—SOMETIMES F—FREQUENTLY G—GENERALLY A—ALMOST ALWAYS

68. I believe that the sole purpose of education should be to equip students to make a living.

69. Problems outside of school—financial difficulties, being in love, conflict with parents, etc.—cause me to neglect my school work.

70. I copy the diagrams, drawings, tables, and other illustrations that the instructor puts on the blackboard.

71. I feel that teachers think too much about grades and lose sight of the real objectives of education.

72. I strive to develop a sincere interest in every course I take.

73. I complete my homework assignments on time.

74. I lose points on true-false or multiple-choice examinations because I change my original answer only to discover later that I was right the first time.

75. I think that students who ask questions and offer comments in class are only trying to impress the teacher.

76. The prestige of having a college education provides my main motive for going to college.

77. I like to have a radio, record player, or television set turned on while I'm studying.

78. When preparing for an examination, I arrange facts to be learned in some logical order—order of importance, order of presentation in class or textbook, order of time in history, etc.

79. I believe that teachers intentionally schedule tests on the days following important athletic or social activities.

80. I believe that a college's football reputation is just as important as its academic standing.

81. With me, studying is a hit-or-miss proposition depending on the mood I'm in.

82. I am careless of spelling and the mechanics of English composition when answering examination questions.

83. I believe that one way to get good grades is by using flattery on your teachers.

84. I think that it might be best for me to drop out of school and get a job.

85. I study three or more hours per day outside of class.

86. Although I work until the last possible minute, I am unable to finish examinations within the allotted time.

87. I feel that it is almost impossible for the average student to do all of his assigned homework.

88. I feel that the things taught in school do not prepare one to meet adult problems.

89. I keep my assignments up to date by doing my work regularly from day to day.

90. If time is available, I take a few minutes to check over my answers before turning in my examination paper.

91. I feel that the ridiculous assignments made by teachers are the main reason for student cheating.

92. Prolonged reading or study gives me a headache.

93. I prefer to study my lessons alone rather than with others.

94. When tests are returned, I find that my grade has been lowered by careless mistakes.

95. I feel that students cannot be expected to like most teachers.

96. I feel like cutting classes whenever there is something I'd rather do or whenever I need to cram for a test.

97. At the beginning of a study period I organize my work so that I will utilize the time most effectively.

98. During examinations I forget names, dates, formulas, and other details that I really do know.

99. I believe that teachers enter their profession mainly because they enjoy teaching.

100. I believe that grades are based upon a student's ability to memorize facts rather than upon the ability to "think" things through.

Appendix I
Paragraph Completion Method

Paragraph Completion Method

Please write a code word or number of your choosing on the line below (for instrument matching purposes only):

_____

On the following pages, you will be asked to give your ideas about several topics. Please write at least three sentences on each topic.

There are no right or wrong answers, so give your own ideas or opinions about each topic. Indicate the way you really feel about each topic, not the way others feel or the way you think you should feel.

In general spend about three minutes for each item.

What I think about rules ...

When I am criticized ...

What I think about parents ...

When someone does not agree with me ...

When I am not sure ...

When I am told what to do ...

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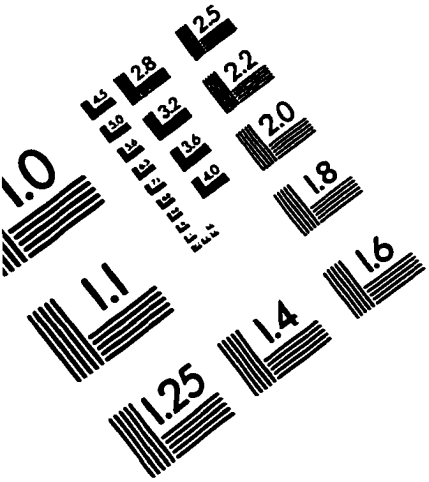
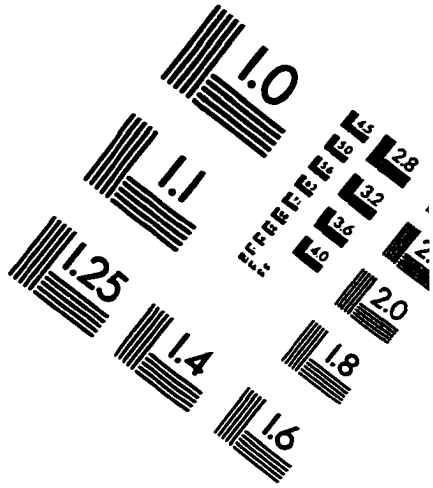
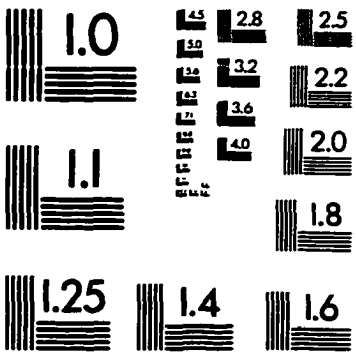
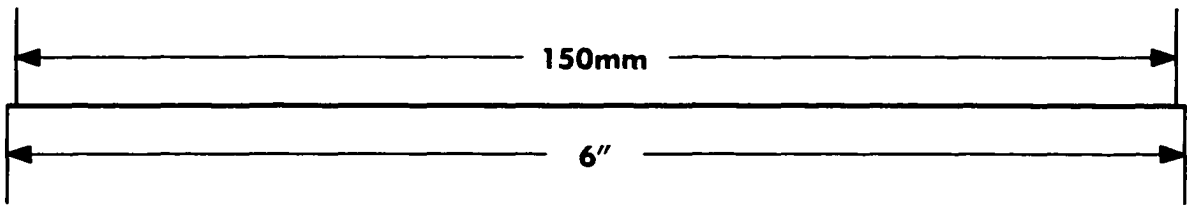
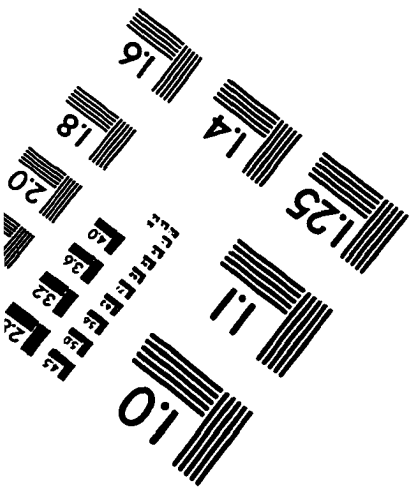
IMAGE EVALUATION TEST TARGET (QA-3)

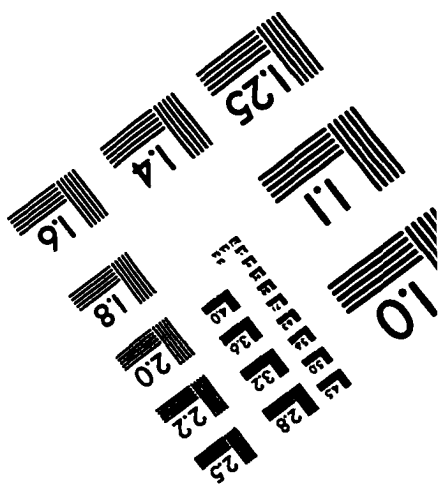












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