

51  
52

A SOCIAL CAUSAL MODEL APPROACH TO  
COLLEGE STUDENT DISCIPLINARY OFFENDER STATUS

by

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in

Student Personnel

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(ABSTRACT)

Despite an abundance of studies on the characteristics of college students described as campus disciplinary offenders, few studies have attempted to investigate the reasons why certain students end up as violators of campus social policies.

The purpose of this study was to construct and test a causal model of college student disciplinary status. Containment Theory, Control Theory, and Involvement Theory served as the theoretical foundation of the study. Variables in the model were operationalized from the College Student Experiences Questionnaire. Data were collected from a sample of students classified as campus disciplinary offenders by the residence life office judicial system of a large land-grant university and from a sample of non-offenders at the same institution.

The data were analyzed using path analysis procedures. Results indicated that there was only partial support for

the linear causal model tested. Important findings were: (a) background variables directly affected disciplinary status, a finding consistent with previous research, (b) the model did not work differently for males and females, (c) students' satisfaction with their choice of college directly impacted on disciplinary status, (d) students' perceptions of the campus interpersonal environment and their personal vocational gains indirectly effected disciplinary status when mediated by the satisfaction with their college choice.

In general, person-environment fit was proposed as the factor having an overall effect on disciplinary status. It was suggested that further testing of the model should occur and that a reciprocal causal model, rather than a linear model, might yield more information about the factors influencing disciplinary status for certain college students.

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## TABLE OF CONTENTS

|   | Page |
|---|------|
| ABSTRACT_____                             | ii   |
| ACKNOWLEDGEMENTS_____                     | iv   |
| LIST OF TABLES_____                       | vii  |
| LIST OF FIGURES_____                      | viii |
| <br>CHAPTER                               |      |
| I. INTRODUCTION_____                      | 1    |
| Background_____                           | 1    |
| Statement of the Problem_____             | 5    |
| Purpose Statement_____                    | 5    |
| Assumptions_____                          | 6    |
| Research Questions_____                   | 7    |
| Significance of the Study_____            | 8    |
| Definition of Terms_____                  | 8    |
| Limitations_____                          | 10   |
| II. REVIEW OF RELATED LITERATURE_____     | 11   |
| Interactionism_____                       | 11   |
| Person-Environment Fit_____               | 13   |
| Control Theory_____                       | 16   |
| Personal Controls_____                    | 17   |
| Social controls_____                      | 20   |
| Involvement_____                          | 23   |
| Developmental Tasks_____                  | 26   |
| Characteristics of Student Offenders_____ | 27   |
| III. METHOD _____                         | 31   |
| Research Objectives_____                  | 31   |
| Research Method_____                      | 32   |
| Description of the Population_____        | 34   |
| Sample_____                               | 34   |
| Instrument_____                           | 36   |
| Reliability_____                          | 37   |

TABLE OF CONTENTS (CONTINUED)

CHAPTER

|      |   |    |
|------|---|----|
| III. |   |    |
|      | Data Collection _____                             | 38 |
|      | Data Analysis _____                               | 39 |
|      | Exploratory Causal Model _____                    | 40 |
|      | Modifications to the Model and Variables _____    | 42 |
|      | Variables _____                                   | 45 |
| IV.  | RESULTS OF THE STUDY _____                        | 48 |
|      | Characteristics of the Sample _____               | 49 |
|      | Path Model Results _____                          | 56 |
| V.   | DISCUSSION, SUMMARY,<br>AND RECOMMENDATIONS _____ | 62 |
|      | Discussion of the Results _____                   | 62 |
|      | Summary _____                                     | 67 |
|      | Recommendations _____                             | 69 |
|      | REFERENCES _____                                  | 71 |
|      | APPENDIX A. Letter of Introduction _____          | 80 |
|      | APPENDIX B. Reminder Postcard _____               | 81 |
|      | APPENDIX C. Follow-up Letter _____                | 82 |
|      | APPENDIX D. Matrix of Total Effects _____         | 83 |
|      | APPENDIX E. Instrument _____                      | 84 |
|      | APPENDIX F. Factor Analysis Results _____         | 92 |
|      | VITA _____  | 96 |

## LIST OF TABLES

| Table  | Page |
|--|------|
| 1. Reliability of CSEQ Variables and<br>CSEQ Composite Variables in the Model_____ | 50   |
| 2. Means and Standard Deviations for Sample_____                                   | 53   |
| 3. Correlation Matrix for Sample_____  | 54   |
| 4. Matrix of Direct Effects_____   | 59   |
| 5. Matrix of Indirect Effects_____   | 60   |

## LIST OF FIGURES

| Figure  | Page |
|---|------|
| 1. Defective Controls_____  | 18   |
| 2. Proposed Causal Model of College<br>Student Disciplinary Status_____ | 41   |
| 3. Modified Causal Model of College<br>Student Disciplinary Status_____ | 43   |
| 4. Results of Path Model of College<br>Student Disciplinary Status_____ | 57   |



## CHAPTER ONE

The goal of pre-Civil War higher education was to develop students' intellectual and moral discipline. Faculty alone shouldered this responsibility until the influence of the German university in the late 1800s focused attention on research and the intellectual development of students (Brubacher & Rudy, 1976). Responsibility for monitoring student behavior and discipline became the basis for the college student personnel field.

Despite the increased complexity of higher education and the significant developments in the student personnel profession over the years, two factors have remained constant: student personnel workers are still responsible for student discipline; and knowledge about the causes of disciplinary problems at the college level remains limited and unsystematic.

### Background

The majority of research on the causes of inappropriate student behavior is based upon studies of

children and adolescent populations (Eve, 1978; Matsueda, 1982). One theoretical orientation having the potential for adaptation to the college age population is control theory. This perspective derives from the Chicago school of sociology. Control theory postulates that internal or personal controls and social or environmental controls must be in place to repress the tendency for delinquent acts to occur. Control theory rests on the notion that delinquent acts are to be expected, given the various societal pressures on adolescents. Control theory focuses on identifying the personal and social controls that inhibit such behavior (Shoemaker, 1984).

Reckless (1956; 1961; 1973) identified controls that inhibit non-conformist behavior in his theory of containment. His early research found that positive self-concept restricts delinquent behaviors in young boys. This gradually evolved into the theory of containment, which posits that middle range delinquent acts can be understood by examining the dynamic relationship between positive internal and external forces working against the negative forces that push or pull individuals toward delinquent behavior. Positive self-concept, goal directedness, and a well-developed superego act as positive inner containments against aggressiveness, rebelliousness, and compulsions. According

to Reckless, stable nuclear groups act as positive social forces against delinquent behavior.

Hirschi (1969) completed an empirical study of 17,500 adolescents from which he built a social control theory. This perspective emphasizes the social bond, that Hirschi defines as the adhesive that binds individuals to social institutions. The social bond is comprised of four components: attachment, commitment, involvement, and belief. All four are positively related. However, each acts independently in determining the quality or intensity of the relationship between an individual and social institutions (religion, school, family). Delinquent or inappropriate behavior is likely to result when an individual does not value the opinions of significant others (or when they are absent), when there is no perceived reward for conforming behavior, or when involvement in conventional activities is absent. Jensen (1972) and Hindelang (1973) substantiated the importance of social bond components in determining behavior and several causal models have been constructed using this theory (Cernovich, 1978; Eve, 1978; Linden & Hackler, 1973).

The utility of this theory, and the causal models based on it, lies in the apparent relationship to person-environment fit models that have been popular in student personnel literature. Personal variables, such as the

developmental tasks of students, have been found to impact significantly upon student outcomes and behaviors when they interact with environmental characteristics of college campuses (Astin, 1977; Chickering, 1969; Huebner, 1980).

Coupled with this apparent relationship, is the recent work of Astin (1984) and Pace (1980; 1984). Astin writes that what an individual student does with time, and how he or she behaves, defines involvement. Involvement implies an investment of psychological and physical energy in the college experience. Hirschi's (1969) and Astin's (1984) definitions of involvement are remarkably similar in that both encompass the ideas of attachment, commitment, and belief.

Hirschi's writing implicitly suggests that a quality component is at work in each of the four parts of the social bond, that in turn produces the necessary controls. Pace's research focuses on measuring the quality of college student efforts (1979; 1983). He also suggests that the quality of a student's relationship with the campus environment largely influences the quality of outcomes for that student. Thus, a convincing case exists for the construction of a control theory-based causal model of college student behavior. The literature related to student offenders offers additional support for this belief.

The literature relating specifically to college student offenders offers only static descriptions of this group of students (Bazik & Meyering, 1965; LeMay, 1968; Tisdale & Brown, 1965), and much of the research is dated (Tracy, Foster, Perkins, & Hillman, 1979). It appears that the construction of a model to account for probable causes of inappropriate behavior in college students should suggest possible intervention strategies to be used with this group of students.

#### Statement of the Problem

Existing research offers little beyond static demographic characteristics and little on the probable influences affecting offender status in college students.

#### Purpose Statement

The purpose of this study was to construct and test a causal model of college student behavior as it relates to both the disciplinary offender and the non-offender status. Specifically, the study focused on identifying the personal and environmental factors which influence the disciplinary status of students. Background variables, social control

variables, and personal control variables were ordered in the construction of the research model based upon a review of literature.

### Assumptions

This study evolves from assumptions derived from Lewin (1936), Pace (1980), Astin (1984), Chickering (1969), Reckless (1961), and Hirschi (1969). The quality of student effort is a powerful concept in studying the impact of college on students, that involvement in the campus environment is quantitative and qualitative, that involvement and effort imply a behavioral component, that what an individual does and how he or she behaves defines involvement, that behavior is a function of the interaction of the person and characteristics of the environment, that student time and energy are finite, that the choice to participate in inappropriate or counterproductive activities determines the amount of time that students can devote to more positive activities (or vice versa), that college students have developmental tasks to resolve that often influence behavior, and that internal and external controls are critical factors in predicting delinquent behavior.

## Research Questions

The following research questions guided this study. The detailed method of answering these questions appears in Chapter Three.

1) What background, personal, and social variables directly or indirectly influence the disciplinary status of students?

2) What background, personal, and social variables directly or indirectly influence the disciplinary status of male or female college students?

3) For the offender group, what differences exist between background, personal, and social variables and the type of offense committed?

The offenses were categorized into five types: alcohol and/or drug, human safety, abusive and or disorderly conduct, theft, and visitation. Chapter Three includes a detailed description of the variables and the model.

### Significance of the Study

The need for this study evolved from the lack of theory-based studies of college student offenders in the literature and from the desire to identify a model that would have utility when applied to a college student population. The study provided a way to test student offender characteristics that is not solely demographic in nature that may contribute to the understanding of the problem.

### Definition of Terms

Student offenders. Students found guilty of violating university regulations within university residence halls.

Static characteristics. Student characteristics that distinguish groups of students, such as age, sex, and year in college. These characteristics cannot be altered by interventions.

Dynamic characteristics. Characteristics that identify students, or groups of students, and lend themselves to change efforts or interventions. Examples include place of residence, club memberships, and use of campus facilities.



Student involvement. The amount of physical and psychological energy a student devotes to the higher education experience. Involvement is what a student does with his or her time.

Quality of student effort. The amount and intensity of energy given to campus activities.

Offense categories. These are the types of rule infractions students are charged with and they are divided into several categories: (a) alcohol/drugs refers to violations of campus or state policies related to those substances; (b) human safety includes weapon, firework, fire equipment, fire alarm, unauthorized entrance violations, vandalism, and disregard of fire alarms; (c) abusive/disorderly conduct includes failure to comply, physical threats, obscene conduct, failure to observe, and involvement in a violation; (d) theft refers to theft of university or student property within the residence halls; and, (e) visitation refers to the failure to comply with stated visitation hours established for the residence halls by the residence life office.

### Limitations

This study was conducted at a large, southeastern land grant university with an enrollment of 22,000 students. The sample was drawn from a population of 8,800 students residing in the residence halls during the 1985-1986 academic year. It included students never involved in the residence life judicial system and students involved in and found guilty of policy violations by the residence life judicial system for the 1985-86 academic year. It did not include academic dishonesty cases or policy violations that occurred outside of the residence halls. Separate judicial systems were operated to handle those types of violations. Because another causal model might have been operating in incidents of academic dishonesty, those cases were not included in this attempt to build a causal model of social violations.

The results obtained from this study are limited in that variables influencing the likelihood of a student's becoming an offender on one campus are not necessarily a definitive statement on the problem for all campuses.

## CHAPTER TWO

### Review of Related Literature

Six main issues are addressed in this literature review: interactionism, person-environment fit, control theory, involvement, developmental tasks of college students, and characteristics of student offenders. The discussion represents a topic by topic analysis of the literature. Each section builds upon the previous section to form a foundation for the connections that are made between topics.

#### Interactionism

Human behavior cannot be viewed as the sole product of either personality traits or environmental contexts. The writings of Lewin (1936) and Murray (1938) were among the first to propose that the interaction of the person and environment determine the behavior of individuals. The basic concept undergirding interactionism is that behavior is a function of the person interacting with the environment. Ekehammer (1974) determined that the interactionist perspective accounts for more explained variance in behavior

than does either person oriented or environmentally oriented studies.

The interactionist perspective of behavior was introduced to illustrate the need to consider both individual and environmental characteristics when attempting to explain or predict behavior. The foundation of interactionism builds upon several empirical studies. Endler, Hunt, and Rosenstein (1962) determined that the variation in the anxiousness of individuals over performing a task was attributable to the combination of the situation, the response mode, and the individual. Bishop and Witt (1970) expanded this study by focusing upon the interaction of leisure situations and individual modes of response. They determined that neither person nor situation has a great deal of individual influence on reported leisure activities of men and women. However, the interaction of person, situation, and mode of response accounts for a majority of the explained variance in behavior.

Mischel (1973) challenged the traditional trait approach to personality and suggested that researchers use social learning variables, such as encoding strategies, stimulus outcome expectations, and subjective stimulus values as basic units for studying individuals. He proposed a cognitive social learning view of interaction which suggests that a

person continuously influences the "situations" of his or her life while at the same time is affected by them, with the relationship being a mutual, organic, two way interaction (Mischel, p. 28). The interaction not only represents an individual's reaction to the environment, but, also represents the individual's cognitive interpretation of the environment.

Later, Mischel (1976) conceptualized that the environment is either weak or strong (along a continuum) in influencing individual behavior. Therefore, weak environments suggest that individual variables account for more impact on behavior, while strong environments account for more impact on behavior than do individual variables in a given situation.

#### Person-Environment Fit

To quantify the interactionist perspective more accurately, the concept of person-environment fit evolved in the literature. Person-environment fit suggests that behavior may be predicted or explained by the degree to which a person's needs, attitudes, and expectations are compatible with the demands, press, supports, and characteristics of the environment. Huebner (1980) hypothesized that a good fit

produces a positive effect on personal growth, satisfaction, and performance. In contrast, a poor fit leads to stress, delinquency, and mental illness.

Researchers have operationalized "goodness of fit" using several approaches. One difference in approaches is between the collection of objective and subjective data in assessing person-environment fit. Objective measures are directly observable behaviors, events, or physical characteristics, while subjective measures rely upon individual perceptions of the environment. Barker (1968) and Sommer (1969) exemplify the objective approach, and Moos (1973, 1976; 1979), Pace and Stern (1958), and Stern (1970) represent the subjective approach. Pervin (1968) suggested that a useful strategy would be to combine the two orientations whenever possible to gain a more complete picture of the person-environment interaction.

Holland proposed that person-environment fit could be defined as a match between personality type and a defined environment type. His research (1962, 1966; 1973) indicates that people feel more satisfied and productive if they are in an environment populated with like personalities. The human aggregate of the individuals in the environment define the type of environment that exists.

Pervin, in a series of studies, pointed to person-environment congruence as a function of the match

between individual self-concept (real and ideal) and the individual's perception of the environment (1967a, 1967b, 1968). His studies indicate that the smaller the discrepancies between self-concept and the perceived environment the greater the individual's satisfaction with the environment.

Most studies have focused exclusively on the student-campus fit and tend to support the interactionist perspective as it relates to satisfaction and productivity (Astin, 1968; Clark & Trow, 1966; Moos, 1979; Pace & Stern, 1958; Stern, 1970). Other studies have taken the knowledge of person-environment fit and applied it to campus problems. Schroeder's (1981, 1977; 1976) early research applied this knowledge to solve residence hall problems. He termed his derivation of the interaction of person and environment as territoriality and his general contention was that problems such as vandalism, inappropriate behaviors, excessive noise, and poor retention in the halls result from students' inability to control their physical environment to make it responsive to their needs (1981, p.120). Allowing students to manipulate the environment based on perceived needs reduced many of the cited problems significantly, according to his studies.

The studies cited to this point focused upon the importance of the fit for individual well-being and satisfaction. Tracey and Sherry (1984) derived fit scores from the University Residence Environment Scales (URES) (Moos & Gerst, 1974) to determine the extent to which college student distress, such as anxiety and health problems, is a function of person-environment fit. They found that high discrepancy scores were associated with high distress, while low values were associated with well-being.

The range of studies cited indicates the complexity of the person-environment interaction in determining individuals' behavior. This may be a key factor in determining whether a student becomes an offender, however, it may be only one of many factors. Control theory places the role of person-environment fit into the perspective of a theory of delinquent behavior.

### Control Theories

Control theories share four basic assumptions: (a) individuals must somehow be controlled if delinquent acts are to be repressed, (b) the tendency to commit delinquent acts is universal, (c) the key to explaining delinquent behavior lies in identifying the missing control factors in



delinquents; and, (d) a social consensus exists concerning beliefs and norms associated with social institutions (Shoemaker, 1984). Figure 1, adapted from Shoemaker, is used to represent the control theory explanation of delinquency.

Control theorists view personal and social controls as interactors in the process, with their effects being mediated by faulty or weakened self-esteem and institutional involvements. The work of several researchers (Empey & Erickson, 1966; Gold, 1966; Nye, Short, & Olson, 1958) has supported the control theory perspective.

### Personal Controls

Psychological control mechanisms have their roots in psychoanalysis; however, this emphasis has been replaced in the last thirty years by a more interactive approach (Empey, 1982). Reckless (1956) proposed positive self-concept in juveniles as the best "insulation" against delinquency. According to Reckless, the presence of a socially acceptable concept of self reflects an internalization of non-delinquent values and a conformity to the expectations of significant others.

Further refinement of the relationship between self-concept and delinquent behavior resulted in the development of containment theory (Reckless, 1961).

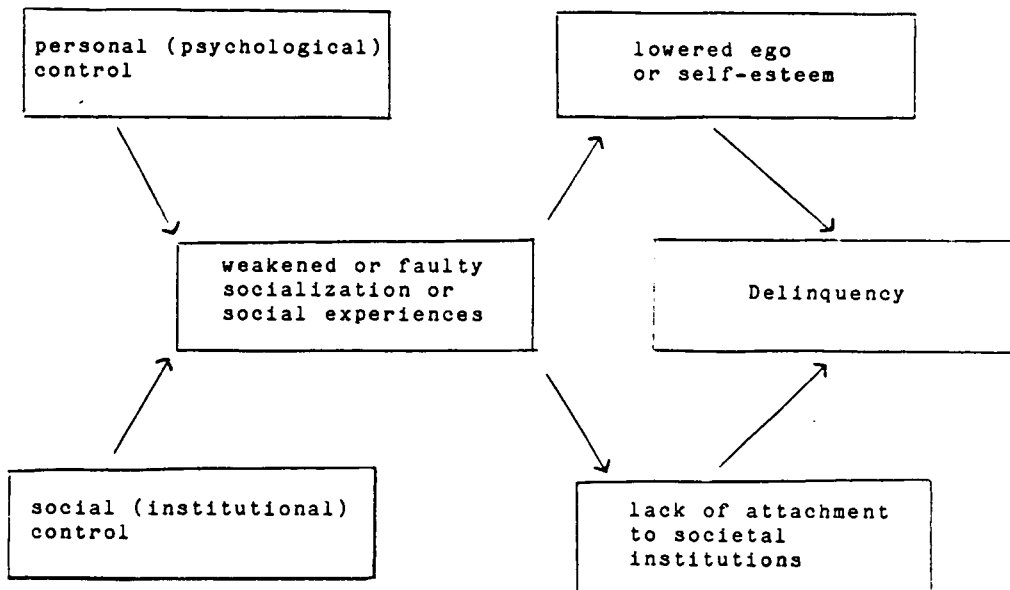


Figure 1. Defective Control Systems

Containment theory focuses on explaining, what Reckless (1961) called the "middle range" of delinquent behavior and, what Gibbons (1983) labeled mundane crime. It excludes deep psychological or biologically rooted crimes and excludes the sub-culture of organized crime. Reckless (1961) defined inner containment as self-control, positive self-concept, ego strength, high tolerance of frustration, sense of responsibility, and goal directedness. Social containment includes structural buffers that hold the individual in check. Reckless cited effective supervision, defined limits, opportunities for acceptance, and identity formation as examples.

Reckless's work focused on the internal controls either present or absent in individuals as evidenced in his later work which focused on inner pulls, pressures, external pulls, and layers of containment (Reckless, 1973). The person-environment interaction literature suggests that an adequate explanation of behavior must include both personal and social variables. Jensen (1972) and Voss (1969) substantiate this view and express concern that the containment theory downplayed the importance of the socialization process.

### Social Control

Elaborating on the need to represent adequately the importance of external factors in the explanation of delinquency, Hirschi (1969) proposed that the social bond is the most important deterrent to delinquent behavior. He defined the social bond as the total social control repressing delinquent behavior and he divided it into four parts: attachment, commitment, involvement, and beliefs.

Attachment refers to the psychological or emotional relationship between an individual and a group. From this attachment, a sense of conformity and appropriate behavior develops. Attachment develops to parents, peers, or school with the assumption that the stronger the attachments, the less likely delinquent behavior will develop. Hirschi refers to attachment as the "sociological counterpart to the superego" (1969, p. 20).

Commitment is a rational weighing of the costs of conforming versus the costs of non-conformity. This suggests that the higher the stakes are to conform, the less likely someone will be to engage in non-conformist behavior. Hirschi noted that ambitions and aspirations, especially as they relate to occupational and educational careers, play an important role in producing conformity.

Hirschi described involvement as the individual's engrossment in conventional activities such as work,

education, organizations, and clubs: "To the extent that he is engrossed in conventional activities, he cannot possibly think about deviant acts, let alone act out his inclinations" (1969 p. 22). This appears to be a concept generated by Matza and Sykes (1961) and was reformulated recently by Astin (1984) for application to college students.

The final component of the theory is beliefs, which refers to the acceptance of a conventional value system. Factors that act to weaken conventional beliefs are thought to increase the probability that someone will commit a delinquent act.

The empirical research related to this theory generally has supported Hirschi's components as they relate to family and school. Jensen (1972) found that family support negatively relates to delinquent behavior and that such behavior is related independently to delinquent associates. Hindelang (1973) replicated part of Hirschi's study, with the result offering further support for family and school attachments and commitments. Empey and Lubeck (1971), Hepburn (1977), Linden and Hackler (1973), and Phillips and Kelly (1979) established that, in school situations, a lack of social controls precedes delinquent behavior in the causal process.

Several researchers have combined social control theory with strain or structural theories to increase the power of their causal explanations of delinquent behavior. Notable examples include Cernovich (1978), Eve (1978), Johnson (1979), Linden and Hackler (1973), Liska and Reed (1985), Matsueda (1982), and Thompson and Dodder (1983). With two exceptions, all reported that causal models combining social control theory with another orientation explain a substantial amount of the variance in delinquent behavior prediction. Social control variables have the most explanatory power in predicting the probability of delinquent behavior. Exceptions are Matsueda (1982), who found support for a modified differential association model, and Liska and Reed (1985), who proposed a nonrecursive model of person/institution interaction.

### Summary

The strength of control theory lies in its inclusion of personal and social variables in attempting to predict delinquent behavior. The review of person-environment research illustrates the importance of such a perspective. An important consideration is that control theory derives from empirical research with adolescents and children. The utility of using this theory as a basis for constructing a model for

college student offender status prediction rests upon the ability to define personal and social control in terms of both college student characteristics and the college environment. The next three sections address those issues.

### Involvement

It has been suggested that involvement, as defined by Astin (1984) and Pace (1980; 1984), encompasses the same elements that comprise the social bond Hirschi (1969) described. The following discussion is structured to review the concept of involvement as it relates to college students and to illustrate the relationship between involvement and the social bond.

The concept of involvement has similarities to Jung's (1973) description of psychic energy. According to Jung, psychic energy exists only as a concept. It only becomes "real" when manifested in specific activities. Jung referred to this as a subjective measure of a person's values and contended that individuals make a statement about their system of values by the types of activities or actions in which they engage.

Jung also suggested that the principle of equivalence used to define physical energy is applicable to psychic

energy despite the consideration that psychic energy is not a closed system. Using psychic energy to bring about a particular situation produces an equal quantity of the same energy in a different form, according to Jung. The transformation principle suggests the idea that the quality of student outcomes directly relate to the quantity and quality of personal effort put into activities designed to foster positive outcomes.

Astin (1984) defined involvement as the amount of physical and psychological energy that students devote to the academic experience. A highly involved student is one who devotes considerable energy to studying, participating in student organizations, and interacting with peers or faculty. An uninvolved student spends little time on campus, studies infrequently, and has little contact with peers and faculty (p. 297).

This deceptively simple concept is derived from many types of studies with college students. Retention studies (Astin, 1975; Pascarella & Beal, 1982; Pascarella, Terenzini, & Wolfle, 1986; Tinto, 1975) indicate that an important factor in increasing student persistence is strengthened student ties with the social and academic structures of the institution. In effect, these studies support the idea of involving students to prevent withdrawals in the same way



that control theory advocates strengthening the social bond to prevent delinquent behavior.

Astin (1973) and Chickering (1969; 1974) illustrated the power of on campus residence in improving retention, faculty and peer relationships, and grade point averages. The longitudinal, multicampus projects of Astin (1977), Feldman and Newcomb (1969), and Jacobs (1957) also supported the positive power of extracurricular activities, faculty relationships, and residence hall living upon student involvement. Smaller institutions have a greater impact on student development and involvement in part because they prevent redundancy from inhibiting student participation in all facets of the institution (Chickering, 1969).

What these studies suggest is that personal and social connections linking the student to the campus increases the attachment, commitment, involvement, and belief components of the social bond of the student. Pace's (1980; 1984) conceptualization centers around the quality of student involvement or effort in the college experience. This coincides with Hirschi's (1969) implicit suggestion that for the components of the social bond to be effective, they must exhibit qualitative and quantitative dimensions. Clearly, research suggests that student involvement can be used as an accurate representation of the student's social bond.

### Developmental Tasks

A overview of the psychosocial developmental tasks that impact upon personal controls of traditional age college students is offered in this section.

For Erikson(1968), the developmental crisis to be resolved by 18 to 22 year olds is the establishment of a mature, adult identity. This complex task has prompted researchers to attempt various conceptualizations of the task (D. Heath, 1968; R. Heath, 1964; Marcia, 1964). Chickering (1969) expanded Erikson's concept of identity as it applies to college students. His theory suggests that students must resolve developmental tasks related to managing emotions, developing competence, and achieving autonomy before establishing a stable identity. He also states that a stable identity is prerequisite to resolving issues related to interpersonal relationships, life purpose, and establishing integrity.

Students may be dealing simultaneously with a lack of parental supervision; establishing intellectual, social, and physical competence; controlling strong sexual and aggressive impulses; experiencing variations in internal controls; and, learning to establish personal priorities (Rodgers, 1980). Sanford (1962) wrote that college freshmen have internal

control mechanisms in place to inhibit impulsive behavior; but, the controls "for the purpose of inhibiting impulse are still unseasoned and uncertain...the freshman is an enthusiastic supporter and imitator of adult ways who knows what it is to backslide" (p. 260). He also underscored the instability of students' self-esteem. Comfort with self-concept is often lacking and external sources are often overused for self definition. The personal controls of self-concept and inner containment described by Reckless (1956; 1961) are clearly in a state of flux for most entering students and, for some, they remain that way for an extended portion of their college careers. Thus, personal controls are often in a vulnerable state for many students and this condition may increase their susceptibility for exhibiting inappropriate behaviors on campus.

#### Characteristics of Student Offenders

The research on student offenders is briefly reviewed here and is focused upon the four classifications of the literature: legal aspects, surveys of disciplinary procedures, theory and practice, and characteristics.

Recent literature emphasizes legal aspects of student discipline and disciplinary board practices (Ostroth,

Armstrong, & Campbell, 1978; Steele, Johnson, & Rickard, 1984). These studies suggest that the preoccupation with student's legal rights reflect the societal trends toward increased litigation and students' assertive challenging of campus judicial systems.

A majority of the theory and practice of disciplinary counseling at the college level has foundation in the writings of Lloyd-Jones and Smith (1938), Mueller (1958), Williamson (1955; 1956; 1961), and Wrenn (1949, 1951). Little evidence exists to suggest that new theories of campus discipline have been developed in the last twenty years which incorporate student development research findings. This contrasts a recent study which found that campus disciplinary agents and chief student affairs officers agree that student disciplinary counseling is a major function of student development. The study also found that disciplinary agents prefer student development concepts over legalistic concerns in discussing student discipline (Bosage, 1981).

Le May (1968) suggested that counseling techniques and theories related to college student discipline developed before an adequate knowledge of student offender characteristics was established. The literature relating to student offender characteristics supports Le May's contention. Contradictory findings and methodological

inconsistencies hamper ascertaining generalizations about student offenders.

The research relating to characteristics of student offenders identifies males, freshman or sophomores, students with lower grade point averages, fraternity members, and students who place little emphasis on intellectual goals, cultural-intellectual hobbies, or recreational activities as those most likely to be offenders (Bazik & Meyering, 1965; Lenning, 1970; Tisdale & Brown, 1965; Williamson, Jorve, & Langerstadt-Knudson, 1952).

Studies of personality patterns of student offenders indicate that offenders hold more emergent values than non-offenders; but, other findings are inconsistent or not significant (Clark, 1964; Cummins, 1966; Le May & Murphy, 1967; Le May, 1968; Osborne, Sanders & Young, 1956).

Janosik, Davis, and Spencer (1985), Janosik, Dunn, and Spencer (in press), Leslie (1983), and Tracy, Foster, Perkins, and Hillman (1979) have studied the problem most recently. The Tracy et al. study was designed to correct previous problems such as not separating male and female offenders in analyses, not including significant variables from previous studies which would allow for comparisons between studies, and not doing longitudinal research on

offenders. Their study incorporated previously significant variables such as class, gender, place of residence, major, and established a baseline for generalizing between offenders and the campus population where the study was conducted. The study was not longitudinal nor did it focus on the problem of recidivism.

Leslie's (1983) study focused on vandalism and is the only study to use a social-psychological explanation as a theoretical basis in analyzing the problem. Collective group dynamics and a "conventional vandalism" typology were offered as useful theoretical explanations for college student destructiveness.

Studies of repeat offender characteristics (Janosik et al., in press) indicate that repeat offenders differ from one time offenders along the dimensions of gender, year in college, and college affiliation. It was also found that repeat offenders tended to be involved in more serious offenses than first time offenders.

## CHAPTER THREE

### Method

The procedures used in the data collection and analysis are described in this chapter in the following sequence: (a) research objectives, (b) research method, (c) description of the population, (d) sample, (e) instrument, (f) reliability (g) data collection procedure, (h) data analysis, (i) exploratory causal model, (i) modifications to model and variables, and, (j) variables.

### Research Objectives

The purpose of this research was to construct and test a causal model of college student behavior as it relates to disciplinary offender and non-offender status. Specifically, the study focuses on identifying those personal and environmental factors operating which influence the disciplinary status of students. Background variables, social control variables, and personal control variables were ordered in the construction of the model based upon the review of literature. The following questions were addressed by the study:

1) What background, personal, and social variables directly or indirectly influence the disciplinary status of students?

2) What background, personal, and social variables directly or indirectly influence the disciplinary status of male or female students?

3) For the offender group, what differences exist between background, personal, and social variables and the type of offenses committed by the group?

#### Research Method

Path analysis was used as the main analysis technique for analyzing data. The major assumptions underlying this technique include: that the sets of relationships among the variables are linear; that they are measured on at least an interval scale; and, that the relationship between variables is asymmetric. Path analysis requires that the causal model be theoretically based (Van Dalen, 1979). Control theory served as the theoretical basis for the model and the variables used were derived from studies that illustrate relevance to college student development or to delinquent behavior in adolescents. Pedhazzer (1973) underscored the importance of a theory based model:



"Misapplications are primarily due to the failure to recognize that the valid use of path analysis is predicated on a theoretical formulation about the pattern of causation among variables being studied. It is theory that generates the path model; not the other way around" (p. 632).

A path analysis is constructed from a series of multiple regression equations. From the equations, variations of scores on the dependent variable are assessed by the direct and indirect effects of the independent variables. The independent variables are classified as endogenous or exogenous. Exogenous variables are presumed to be sources of variance that lie outside of the model. Endogenous variables are influenced by the prior variables in the model, and in turn, exert influence on subsequent variables in the model. The final product of a path analysis is an estimate of the direct, indirect, and total effects of the exogenous and endogenous variables upon the dependent variable.

An analysis of variance procedure was used to answer question three, because the anticipated multiple categories of offenses would have prevented the use of path analysis.

### Description of the Population

The population for this study included students found guilty of committing university policy violations within the university residence halls for the 1985-86 academic year. Approximately 678 students comprised the population. Samples of female and male offenders were drawn from this population. Random samples of male and female non-offenders living in the residence halls during 1985-1986 were included to establish a basis for comparison with the offender samples. Non-offender status was defined as students never involved in the residence life judicial system during their residence in the halls. Offenders and non-offenders completed the College Student Experiences Questionnaire (CSEQ).

### Sample

One thousand seven entries were made into the judicial system data base during the 1985-86 academic year. After eliminating 104 (81M, 23F) not guilty verdicts; 54 students not currently on the student data base due to graduation, transfer, or withdrawal; and attributing 171 multiple entries into the data base to 134 individuals who were repeat offenders, 678 students (259F, 419M) comprised the offender

population. Fifty-one percent of the total offender population was sampled.

The sample for this study contained four sub-groups. The students in the sub-groups were asked to complete the CSEQ. The first group included 174 (of 259) female offenders from the population of 678 offenders. They were identified from the residence life judicial system data base by social security numbers. The 174 were selected because of on campus and local address. The possibility exists that this decision systematically biased the samples.

A sample of 174 male offenders was selected from the total of 419 in the population. The males were selected randomly with the only criterion being that the numbers of on campus and local off campus current addresses in the sample equal the on campus/off campus current addresses found in the female offender group. This criterion also was used in the non-offender sample selections. The belief was that on campus students and students with local addresses would be more likely to return the instrument; therefore, it was an attempt to maximize responses and return rates.

The third and fourth sub-samples included 174 female non-offenders randomly selected from the undergraduate population and residing on campus during the 1985-1986 academic year and 174 male non-offenders from the same

population. A terminal digit sorting order program executed by personnel in the Registrar's office identified students for these samples by social security number through the central student file of the university.

### Instrument

Pace's College Student Experiences Questionnaire (CSEQ) (1979; 1983) was used to collect data on the types and quality of campus involvement exhibited by the sample groups in this study. The instrument measured two dimensions: time and effort. Time refers to the frequency with which students engage in a particular activity while effort refers to the amount of energy students expend on the activities.

The instrument contains the following sections:

1) Background information--Includes information about the individual (age, sex, parents education) and their status in college (major, G.P.A., part time work);

2) Quality of Effort Scales--Fourteen scales with seven related to facilities usage and seven related to opportunities for experiences at the university provides a systematic inquiry of the campus experiences of students (Activities in each scale were arranged from those requiring little effort to those requiring substantial effort. Students

were also asked to report on how often they engaged in the activities. For each scale, a quality of effort score was produced.)

3) Satisfaction with College and Writing and Reading Activities Information--Includes questions related to the amount of reading and writing students were required to do for courses and how well they liked college;

4) Characteristics of the College Environment--Students indication of how much emphasis the university placed on eight types of activities (eight scales) using a seven point rating scale (1=weak to 7=strong). In addition, students were asked about their relationships with peers, faculty, and administrators using the same seven point rating; and,

5) Estimate of Gains--Twenty one statements about important objectives of higher education allowing students to rate their own progress in each area. The responses ranged from very little(=1) to very much(=4) and were an indication of the relationship between quality of effort and attainment.

### Reliability

Revised in 1983, the questionnaire first appeared in 1979. Work by Pace (1983) and his students indicate that the test is reliable, discriminatory, and valid (Friedlander,

1980; Porter, 1982). Reliability estimates for each of the fourteen effort scales range from .79 to .90. A factor analysis of all items in each scale determined the coherence and interrelatedness of the scales. The coefficient of reproducibility, which determines if a scale meets the criteria of a scale, is above .81 for all fourteen scales.

Pace provides a distribution of scores on the quality of effort scales based upon a N of 10,156 students at 40 colleges over a three year period. In addition, extensive work has been done on the relationship of the scores on the quality of effort scales and characteristics of students' status in college (Friedlander, 1980).

#### Data Collection

All contacts with students in the offender and non-offender categories were made under the authority of the university's residence life office. Following identification of students from judicial records and the random sampling procedure, student resident advisors distributed a cover letter informing students of the nature of the study and asking for their cooperation and a copy of the CSEQ to the 442 on campus offenders and non-offenders. The resident advisors collected the completed CSEQs. Students who did not initially complete the survey were sent a follow up postcard

one week after the distribution urging their participation. Approximately three weeks after the postcard, a second letter and instrument were sent to the non-respondents. Student offenders and non-offenders now living off campus received the same materials as students living in the residence halls. They returned the survey by mail and were sent the same follow-up mailings.

The collection procedure resulted in 465 surveys being returned for a response rate of 68 percent. Sub-sample responses rates were as follows: female offenders 68 percent, male offenders 57 percent, female non-offenders 79 percent, and male non-offenders 62 percent.

### Data Analysis

As part of the use agreement of the CSEQ, all completed instruments were sent to National Computer Labs in Iowa where they were scored and the data put on a computer tape. The tape was then sent to the Higher Education Research Institute at U.C.L.A. where the tape format information was added.

The initial step of the analysis process was to examine the frequencies for all variables and run reliability and

and factor analyses to insure the integrity of the data and the variables being used.

The second phase consisted of using a SPSSX program to produce the multiple regression analyses. The dependent variable was regressed on the independent variables in the model. In addition, all variables were regressed on all the preceding variables in the model for a total of eleven equations. This resulted in means, standard deviations, and correlation matrices being produced for use in the path analysis.

The path analysis phase was completed by using the GEMINI program (Wolfle & Ethington, 1985). By entering the composition of the model, the means, the standard deviations, and the correlation matrices into the program, standard errors of the direct and indirect effects of the independent variables in the model and path coefficients among the variables were produced.

### Exploratory Causal Model

The model presented in Figure 2 represents the ordering of the exogenous and endogenous variables based upon their



Background -----> Social Controls -----> Personal Controls -----> Disciplinary Status

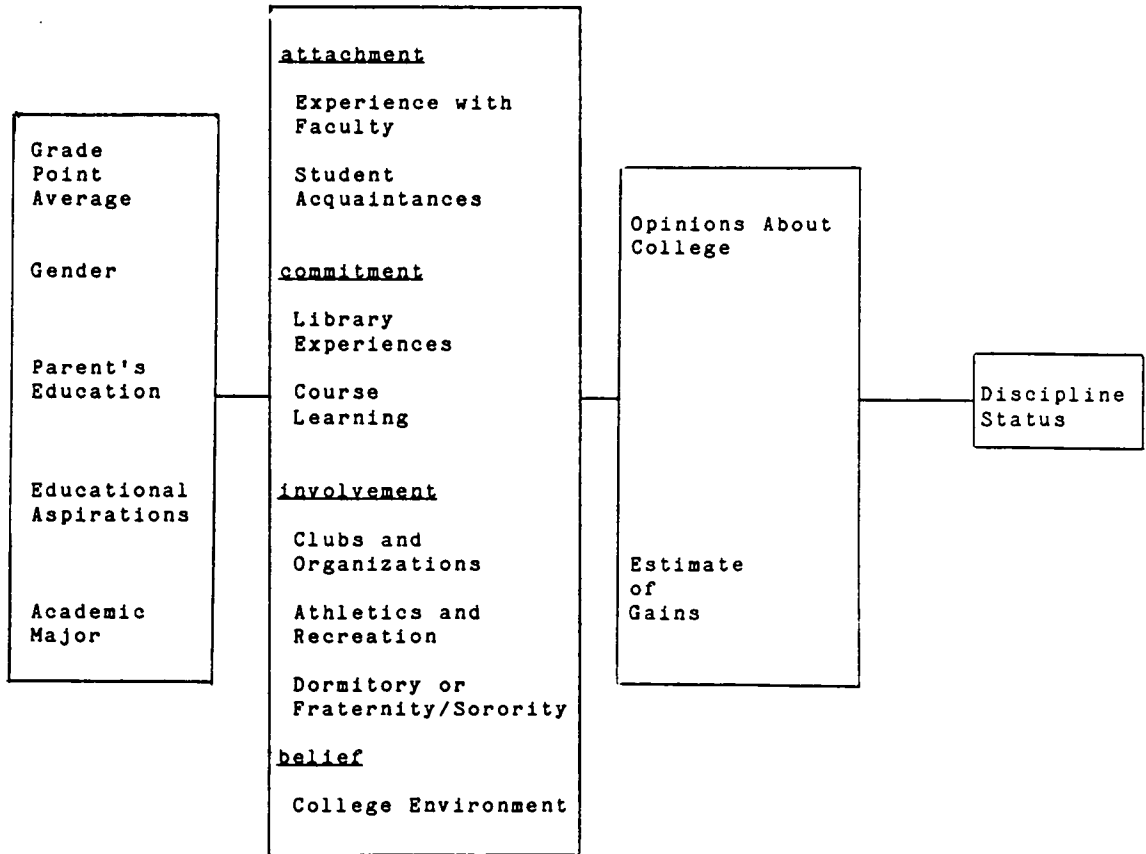


Figure 2. Proposed Causal Model of College Student Disciplinary Status

hypothesized relationships obtained from the literature. The model posits that students' disciplinary status is a function of the exogenous and endogenous variables. The hypothesized linear relationships and the specific variables depicted were selected on the basis of their compatibility with the theoretical foundation guiding the study. It was anticipated that modifications or changes in the exact positioning or composition of the variables was likely given the exploratory nature of the study.

An initial examination of the data confirmed the need to modify or change some of the variables in the proposed model. Practical considerations such as missing data, high intercorrelations, and the results of reliability and factor analyses guided the refinement of the model. However, it should be noted that any changes in the model reflect an explicit effort to preserve the thinking and theoretical framework underlying the hypothesized model in Figure 2.

#### Modifications to the Model and Variables

Figure 3 represents the modified model used in the actual path analysis. Important changes included factoring the Estimate of Gains scores, the College Environment Scale, and the Opinions About College Scale into components that

Background ---> Social Controls -----> Personal Controls -----> Disciplinary Status

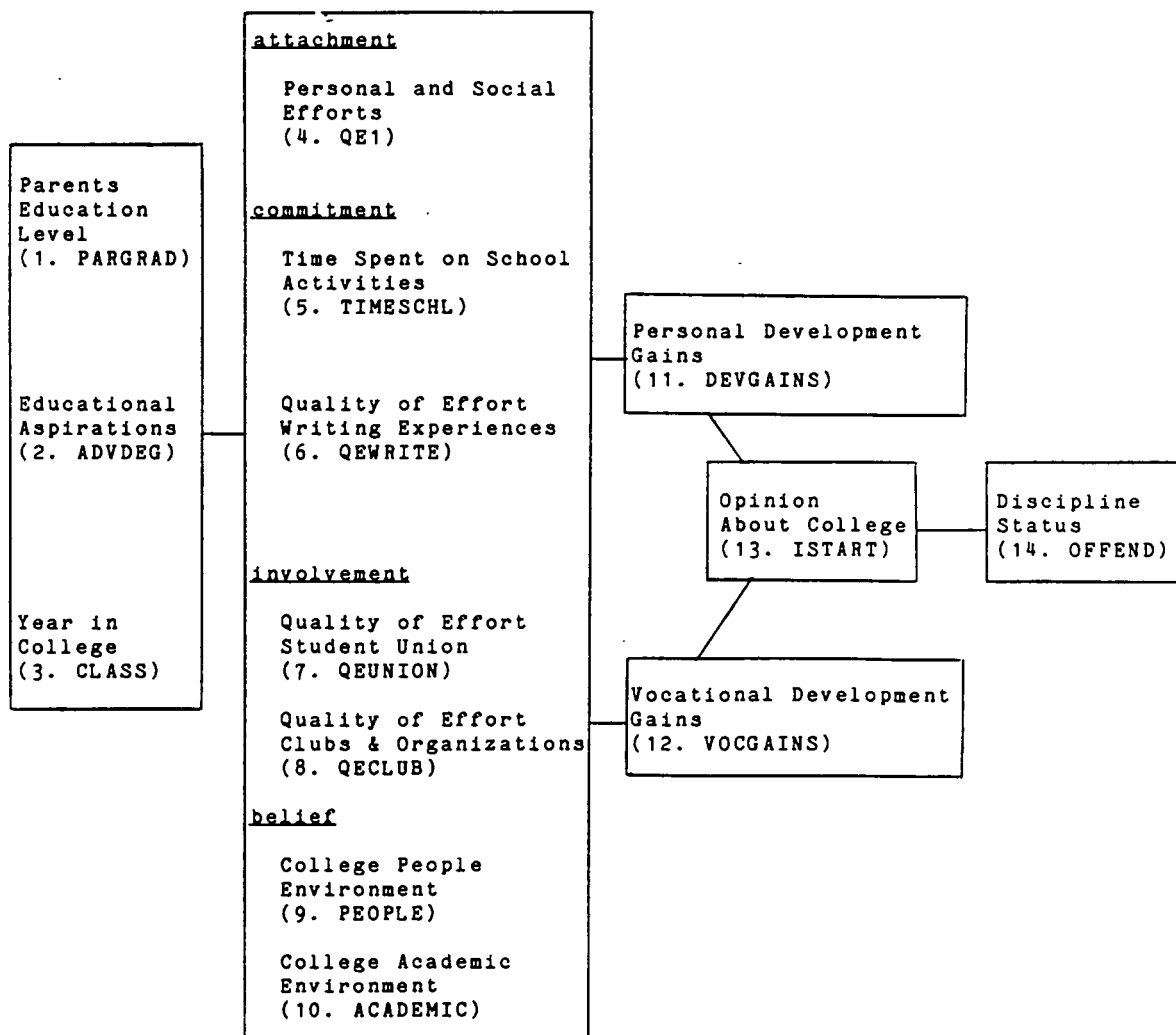


Figure 3. Modified Causal Model of College Student Disciplinary Status

served as individual variables. Also, positioning the variables derived from the factor analysis of the Estimate of Gains Scale (see Appendix F) prior to the Opinion About College component in the causal ordering of variables was an important change that resulted from rethinking the relationship between the variables.

The Quality of Effort Scales used to define social controls also required some changes. Quality of Effort for Dormitory and Fraternity/Sorority Activities had to be dropped because of missing data. The variable labeled QE1 reflects a variable constructed from the Quality of Effort Scales of Personal Experiences, Student Acquaintances, Conversation Topics, and Information in Conversations. Other substitutions reflect an attempt to sharpen or enhance the fit between the theoretical definitions of attachment, commitment, involvement, and belief and the available data.

Background variables were limited to three. Gender, academic major, and grades were dropped because they were inappropriate as exogenous variables or because clear categories could not be obtained, as in the case of academic major.

A list of all variables in the modified model follows. Complete information on the composition and reliability of the variables appears in Chapter Four.

## Variables

Previous studies have identified several independent or predictor variables as contributing to college student outcomes or as contributing to the understanding of delinquent behavior in adolescents. The specification of personal controls (self-esteem, goal directedness) and social controls (attachment, commitment, involvement, and belief) were proposed as scores on the scales, or combinations of scores, of the CSEQ to give realistic estimates of those controls with a college population.

### Exogenous Variables

The exogenous variables included: parents' education level (coded 1=no college, 2=one parent graduated, 3= both parents graduated from college), educational aspirations (coded 1=yes, want to pursue advanced degree 2=no, do not), and year in college (coded 1=freshman, 2=sophomore, 3=junior, 4=senior) and are from the Background Information section of the CSEQ. These variables have been used as background or exogenous in studies dealing with the effects of college on students (Pascarella, 1985; Pascarella, Terenzini, & Wolfle, 1986).

### Endogenous Social Control Variables

The four categories of social control variables included: attachment, commitment, involvement, and belief. Each category was operationalized by appropriate scale scores or composite scale scores from the CSEQ. Attachment was specified as the combination of Personal Experiences, Topics of Conversation, Information in Conversations and Student Acquaintances Scales (QE 1). Each item was coded 4=very often to 1=never and the scale score ranges were from 10 to 40 for each scale. Time spent on school related activities (coded 5=50 or more hours, 4=about 40, 3=about 30, 2=about 20, 1=less than 20) and the Quality of Effort Scale- Writing Experiences (items coded 4=very often to 1=never, scale score range 10 to 40) comprised the measure of commitment. Involvement was defined by the scales of Quality of Effort- Clubs and Organizations and Quality of Effort-Student Union (items coded 4=very often to 1=never, scale score range 10 to 40). The College Environment Scale served as the operationalization of belief and was factored (see Appendix F) into two variables representing the interpersonal environment and the academic environment on campus (items coded 7=strong emphasis to 1=weak emphasis).

### Endogenous Personal Control Variables

The personal control variables of self-esteem and goal directedness (Reckless 1956; 1961) were defined by the scores on the Opinions About College Scale and the Estimate of Gains Scale. A subsequent reliability analysis revealed that one item of the Opinion About College Scale was the dominant measure of the factor and, therefore, was used in the path analysis (ISTART, coded 4=yes, definitely would begin college here again; 3=probably, yes; 2=probably, no; 1=no, definitely would not). Estimate of Gains Scale was factored (Appendix F) with personal development and vocational development (items coded 4=very much to 1=very little) being used in the model to complete the definition of personal controls.

### Dependent Variables

Research question one specified that the dependent variable in the model was offender status (coded 0=offender, 1=nonoffender). To answer research question two, offender status remained as the dependent variable; but, the model was tested using gender as an interactor with the other variables in the model (coded 1=males, 2=females). An analysis of variance was specified to answer research question three using mean scores on CSEQ scales as dependent variables.

Chapter Four contains the information on how each variable was defined and the reliability.

## CHAPTER FOUR

### Results of the Study

The initial data analysis task was to compute several of the variables in the model as stated in Chapter Three. This was necessary in that six of the variables in the model were composites or factors from several of the CSEQ scales. A factor analysis of the thirteen Quality of Effort Scales used showed that four of the scales represented a measure of students' personal experiences and social interactions on campus. These scales (QEPRSEX, QEACQU, QETOPICS, QEINFO) were then added together to become QE1, the variable representing the theoretical attachment of the student to others in the campus environment. All factor analyses are in Appendix F.

Students' perceptions of the campus environment factored into people oriented and academic oriented beliefs and both were used as measures of Hirschi's (1969) concept of beliefs in the model (PEOPLE and ACADEMIC).

The personal control variables of DEVGAINS and VOCGAINS were derived from a factor analysis of the twenty one gain scores contained in the Estimate of Gains Scale and represent students' estimates of their personal gains in understanding themselves and others and their vocationally oriented gains.



A reliability estimate of the three item Opinions About College Scale revealed that one item (ISTART) from the scale was the most reliable estimate of the students' feelings about college and was used as a second measure of personal control.

A summary of the variables in the model, their composition, and the reliability estimates are presented in Table 1.

#### Characteristics of the Sample

Of the 465 students responding to the instrument, ninety-eight percent (98%) were twenty-two years of age or younger, forty-five percent (45%) were males and fifty-five percent (55%) were females. Sixty percent (60%) indicated they were sophomores, twenty-five percent (25%) juniors, and twelve percent (12%) were seniors. One percent (1%) indicated that they were academically defined as still being freshmen. A majority (71%) continued to live in the residence halls with the remainder (29%) living in off campus housing.

Fifty-five percent (55%) of the students reported that their average college grades were B minus or lower while forty-five percent (45%) listed their grades in the B or

TABLE 1

Reliability of CSEQ Variables and CSEQ Composite Variables  
in Model

| Independent Variable                                    | Alpha |
|---|-------|
| 1. QE1 (QEPRSEX + QEACQU + QETOPICS + QEINFO)           | .7702 |
| 2. QEWRITE  | .9013 |
| 3. QEUNION  | .8477 |
| 4. QECLUB   | .8874 |
| 5. PEOPLE (CEADMIN + CEFAC + CEACT)                     | .6170 |
| 6. ACADEMIC (CEANALY + CEINTEL)                         | .5934 |
| 7. DEVGAINS (GNETH + GNPERS + GNPEOP + GNCULT + GNDIFF) | .7651 |
| 8. VOCGAINS (GNVOC + GNCAREER + GNPSS)                  | .7130 |
| 9. ISTART   | .6145 |

## LEGEND:

QE1 = QUALITY OF PERSONAL & SOCIAL EFFORT  
 QEPRSEX = QE-PERSONAL EXPERIENCES  
 QEACQU = QE-STUDENT ACQUANTANCES  
 QETOPICS = QE-CONVERSATION TOPICS  
 QEINFO = QE-INFORMATION IN CONVERSATIONS  
 QEWRITE = QE-WRITING EXPERIENCES  
 QEUNION = QE-STUDENT UNION  
 QECLUB = QE CLUBS AND ORGANIZATIONS  
 PEOPLE = PEOPLE ENVIRONMENT  
 CEADMIN = RELATIONSHIP W/ADMIN.  
 CEFAC = RELATIONSHIP W/FACULTY  
 CEACT = RELATIONSHIP W/STUDENTS  
 ACADEMIC = ACADEMIC ENVIRONMENT  
 CEANALY = EMPHASIS ON ANALYTICAL  
 CEINTEL = EMPHASIS ON SCHOLARSHIP  
 DEVGAINS = PERSONAL & SOCIAL GAINS  
 GNETH = ETHICAL DEVELOPMENT  
 GNPERS = UNDERSTANDING SELF  
 GNPEOP = UNDERSTANDING OTHERS  
 GNCULT = UNDERSTANDING OTHER CULTURES  
 GNDIFF = DIFFERENT FIELDS OF KNOWLEDGE  
 VOCGAINS = VOCATIONAL GAINS  
 GNVOC = VOCATIONAL TRAINING  
 GNCAREER = CAREER DEVELOPMENT  
 GNPSS = BACKGROUND IN PROFESSIONAL FIELD  
 ISTART = WOULD YOU ATTEND THE SAME COLLEGE?

above range. The students' majors were fairly evenly distributed across the CSEQ categories. Engineering majors accounted for twenty-four percent (24%) of all reported majors.

Full time students comprised ninety-nine percent (99%) of the sample. Seventy-four percent (74%) of the students responded that their parents were paying more than half or all of their college expenses and sixty-nine percent (69%) replied that they were not employed during the school year. Sixteen percent (16%) indicated that they worked ten hours or less per week during the school year.

Information related to parents education level revealed that thirty-one percent (31%) had not attended college, thirty-eight percent (38%) reported that both parents had graduated from college, and thirty-one percent (31%) reported that one parent had attended college. Fifty-six percent (56%) of the students indicated a desire to pursue an advanced degree while forty-four percent (44%) said they were not interested in graduate school.

These results indicated that the sample was generally representative of traditional college students in that the majority of the sample was younger than twenty-two, they did not work at outside jobs, they received most of their financial support from parents, and they lived on campus.

It also suggested that the sample was representative of the types of students usually involved in campus disciplinary situations (Bazik and Meyering, 1965).

Table 2 contains the means and standard deviations for the variables in the model and Table 3 provides the intercorrelations of the variables. Four hundred twenty (420) valid cases were used to produce the results.

The mean scores for the background variables are reflective of the general characteristics of the sample as already discussed. The high mean and standard deviation of QE1 is a result of the composite nature of the variable. Time spent on school activities indicates that the students in the sample exhibited a moderately high level of involvement with academic and social activities. The similarity of the Quality of Effort Scale scores for writing, the student union, and clubs (21.96, 18.27, and 19.82 respectively) suggest that the students' time was distributed across a variety of activities with academically oriented activities receiving slightly more emphasis.

Caution should be exercised when examining the means for QE1, PEOPLE, ACADEMIC, DEVGAINS, and VOCGAINS. The composite nature of the variables make comparisons of the means inappropriate.

TABLE 2

Means and Standard Deviations for Sample (N=420)

| <u>Variable</u> | <u>Mean</u> | <u>Standard<br/>Deviation</u> | <u>Legend</u>                               |
|-----------------|-------------|-------------------------------|---|
| 1. PARGRAD      | 2.074       | .824                          | Did parents graduate from college?          |
| 2. ADVDEG       | 1.440       | .497                          | Desire advanced degree                      |
| 3. CLASS        | 2.514       | .746                          | Year in college                             |
| 4. QE1          | 88.821      | 15.322                        | Quality of personal and social effort       |
| 5. TIMESCHL     | 3.548       | .960                          | Time spent on school related activities     |
| 6. QEWRITE      | 21.962      | 6.933                         | Quality of effort - writing experiences     |
| 7. QEUNION      | 18.267      | 5.345                         | Quality of effort - student union           |
| 8. QECLUB       | 19.819      | 6.515                         | Quality of effort - clubs and organizations |
| 9. PEOPLE       | 14.081      | 3.148                         | People environment                          |
| 10. ACADEMIC    | 10.738      | 1.978                         | Academic environment                        |
| 11. DEVGAINS    | 13.895      | 2.933                         | Personal and social development gains       |
| 12. VOCGAINS    | 8.221       | 2.061                         | Vocational development gains                |
| 13. ISTART      | 3.288       | .806                          | Would attend the same college?              |
| 14. OFFEND      | .526        | .500                          | Disciplinary status                         |

TABLE 3

Correlation Matrix for Sample (N=420)

|          | PARGRAD | ADVGE | CLASS | QE1   | TIMESCHL | QEWRITE | QEUNION |
|----------|---------|-------|-------|-------|----------|---------|---------|
| PARGRAD  | 1.000   | -.010 | -.042 | -.066 | .033     | .044    | .065    |
| ADVGE    | -.010   | 1.000 | -.001 | -.215 | -.142    | -.151   | -.166   |
| CLASS    | -.042   | -.001 | 1.000 | -.014 | .036     | -.050   | .128    |
| QE1      | -.066   | -.215 | -.014 | 1.000 | .014     | .401    | .361    |
| TIMESCHL | .033    | -.142 | .036  | .014  | 1.000    | .129    | .025    |
| QEWRITE  | .044    | -.151 | -.050 | .401  | .129     | 1.000   | .220    |
| QEUNION  | .065    | -.166 | .128  | .361  | .025     | .220    | 1.000   |
| QECLUB   | .040    | -.152 | .144  | .365  | .033     | .155    | .564    |
| PEOPLE   | .070    | .008  | -.071 | .176  | .027     | .055    | .112    |
| ACADEMIC | -.023   | -.009 | .012  | .149  | .098     | .048    | .039    |
| DEVGAINS | -.001   | -.011 | .129  | .502  | -.009    | .154    | .216    |
| VOCGAINS | .018    | -.112 | .145  | .237  | .157     | .034    | .119    |
| ISTART   | .069    | .064  | -.009 | .085  | .070     | -.010   | .064    |
| OFFEND   | -.083   | .025  | .194  | -.064 | .094     | -.058   | .078    |

TABLE 3 (Continued)

Correlation Matrix for Sample (N=420)

|          | QECLUB | PEOPLE | ACADEMIC | DEVGAINS | VOCGAINS | ISTART | OFFEND |
|----------|--------|--------|----------|----------|----------|--------|--------|
| PARGRAD  | .040   | .070   | -.023    | -.001    | .018     | .069   | -.083  |
| ADVOEG   | -.152  | .008   | -.009    | -.011    | -.112    | .064   | .025   |
| CLASS    | .144   | -.071  | .012     | .129     | .146     | -.009  | .194   |
| QE1      | .365   | .176   | .149     | .502     | .237     | .085   | -.064  |
| TIMESCHL | .033   | .027   | .098     | -.009    | .157     | .070   | .094   |
| QEWRITE  | .155   | .055   | .048     | .154     | .034     | -.010  | -.058  |
| QEUNION  | .564   | .112   | .039     | .216     | .119     | .064   | .078   |
| QECLUB   | 1.000  | .143   | .076     | .259     | .168     | .130   | .037   |
| PEOPLE   | .143   | 1.000  | .333     | .297     | .255     | .344   | .008   |
| ACADEMIC | .076   | .333   | 1.000    | .154     | .235     | .233   | .012   |
| DEVGAINS | .259   | .297   | .154     | 1.000    | .249     | .142   | .020   |
| VOCGAINS | .168   | .255   | .235     | .249     | 1.000    | .224   | .033   |
| ISTART   | .130   | .344   | .233     | .142     | .224     | 1.000  | .180   |
| OFFEND   | .037   | .008   | .012     | .020     | .033     | .180   | 1.000  |

## Path Model Results

Research question one required that the model be tested with disciplinary status as the dependent variable. The results of this analysis are shown in Figure 4. Direct and indirect paths relative to the dependent variable were tested. The results indicated that parents' education level (PARGRAD), year in college (CLASS), and opinion about starting at the same college (ISTART) had significant direct effects on disciplinary status. Of the three variables, the students' assessment of whether they would enroll in the same college if they had the opportunity to start their college careers over, was the strongest influence on disciplinary status. Year in college and parents' education level were, respectively, the next best indicators. The year in college indicated that underclassmen were more likely to end up as offenders than were upperclassmen. Parents' education level had a negative relationship to offender status which indicated that students with college educated parents were less likely to end up as offenders. Both were background variables.

The paths from the relationships with faculty, administrators, and other students on campus (PEOPLE) and from the estimates of individual vocational gains (VOCGAIN)



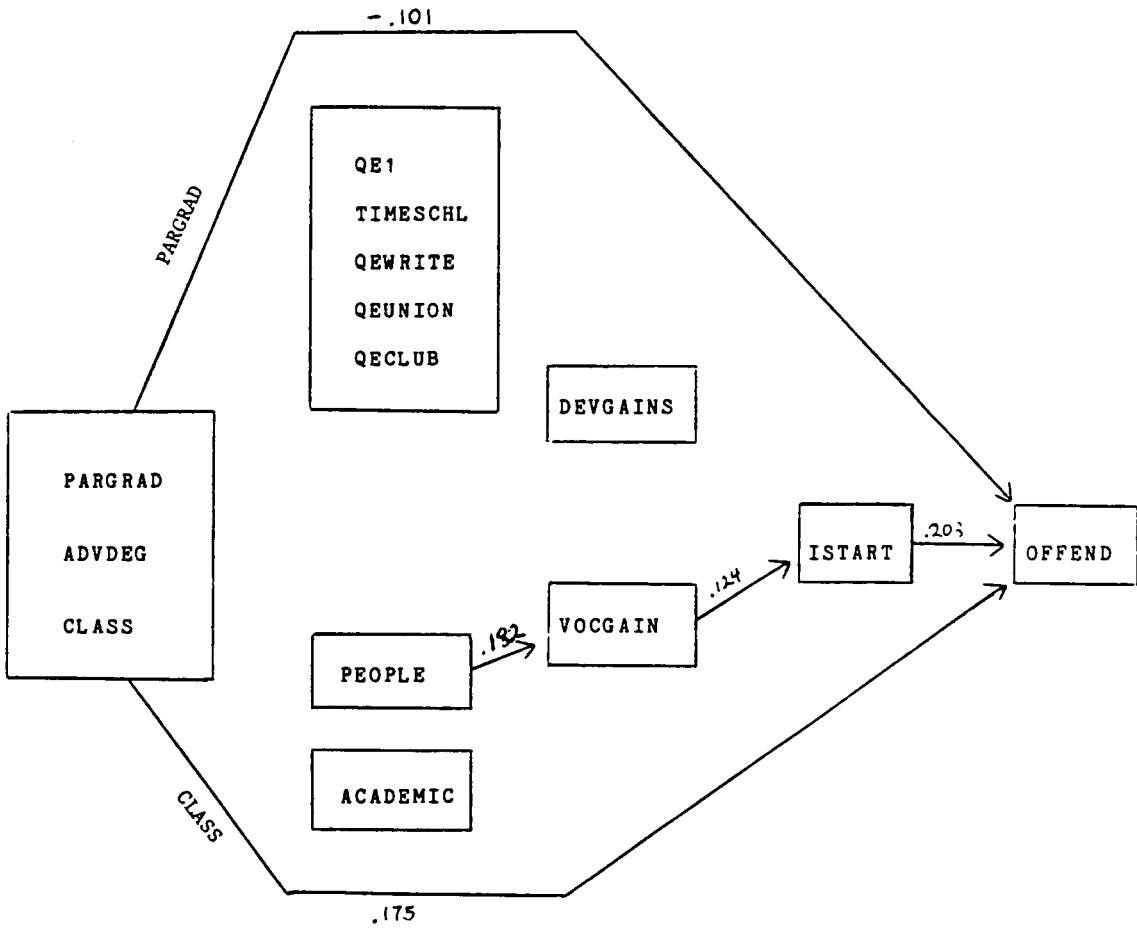


Figure 4. Results of Path Model of College Student Disciplinary Status

represent the two significant indirect effects relative to disciplinary status. As the model indicates, both variables were mediated through the significant direct effect of the students' opinion of starting college at the same institution. The path originating with the perceptions of the interpersonal environment was the stronger influence of the two indirect effects. The students' perceptions of their vocational development mediated the effects of the people environment coefficient. Tables 4 and 5 represent the matrices of direct and indirect effects of interest for the path model. Appendix D contains the matrix of total effects. The path model was able to account for 10.24 percent of the variance in disciplinary status ( $df=13$ ;  $p < .05$ ).

Research question two required that the path model be tested using gender as an interactor with the independent variables in the model. The result of this procedure was a  $R^2$  of 11.69 percent. A F-Test of the change in  $R^2$  was calculated using the  $R^2$  (10.24) obtained from the path model and the  $R^2$  (11.69) obtained from including gender as an interactor variable. No significant difference ( $p < .05$ ) was found indicating that the the model works similarly for males and females.

Research question three specified the use of an analysis of variance procedure. This analysis was not completed

TABLE 4.

## Matrix of Direct Effects for Path Model

|                | OFFEND           | ISTART           | VOCGAINS         | DEVGAINS         | ACADEMIC         | PEOPLE           | QECLUB           | QEUNION          | QEWRITE          | JIMESCHL         | QE1              |
|----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| ISTART         | .203<br>(.126)   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| VOCGAINS       | -.028<br>(-.007) | .124<br>(.045)   |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| DEVGAINS       | .0263<br>(.005)  | .009<br>(.002)   |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| ACADEMIC       | -.023<br>(-.006) | .110<br>(.045)   | .131<br>(.137)   | .010<br>(.015)   |                  |                  |                  |                  |                  |                  |                  |
| PEOPLE         | -.027<br>(-.004) | .258<br>(.066)   | .182<br>(.119)   | .212<br>(.198)   |                  |                  |                  |                  |                  |                  |                  |
| QECLUB         | -.028<br>(-.002) | .090<br>(.011)   | .049<br>(.016)   | .055<br>(.025)   |                  |                  |                  |                  |                  |                  |                  |
| QEUNION        | .1088<br>(.010)  | -.014<br>(-.002) | -.021<br>(-.008) | -.011<br>(-.006) |                  |                  |                  |                  |                  |                  |                  |
| QEWRITE        | -.033<br>(-.002) | -.041<br>(-.005) | -.085<br>(-.025) | -.038<br>(-.016) |                  |                  |                  |                  |                  |                  |                  |
| TIMESCHL       | .090<br>(.0468)  | .048<br>(.040)   | .132<br>(.282)   | -.013<br>(-.038) |                  |                  |                  |                  |                  |                  |                  |
| QE1            | -.099<br>(-.003) | -.001<br>(.000)  | .198<br>(.027)   | .486<br>(.093)   |                  |                  |                  |                  |                  |                  |                  |
| CLASS          | .175<br>(.117)   | -.024<br>(-.026) | .148<br>(.409)   | .144<br>(.568)   | .011<br>(.030)   | -.068<br>(-.286) | .146<br>(1.28)   | .131<br>(.940)   | -.048<br>(-.448) | .037<br>(.048)   | -.017<br>(-.354) |
| ADVDEG         | .009<br>(.009)   | .089<br>(.144)   | -.059<br>(-.245) | .092<br>(.541)   | -.009<br>(-.035) | .008<br>(.052)   | -.152<br>(-1.99) | -.165<br>(-1.77) | -.151<br>(-2.10) | -.141<br>(-.273) | -.216<br>(-6.66) |
| PARGRAD        | -.101<br>(-.062) | .048<br>(.047)   | .026<br>(.056)   | .024<br>(.086)   | -.023<br>(-.055) | .068<br>(.258)   | .045<br>(.352)   | .069<br>(.446)   | .040<br>(.337)   | .034<br>(.039)   | -.069<br>(-1.28) |
| R <sup>2</sup> | .1024            | .1671            | .1764            | .3223            | .0075            | .0096            | .0460            | .0486            | .0269            | .0224            | .0513            |

a Standardized coefficients

b Unstandardized coefficients

TABLE 5

Matrix of Indirect Effects for Path Model

|          | <u>OFFEND</u>      | <u>ISTART</u>    | <u>VOCGAINS</u>  | <u>DEVGAINS</u>  |
|----------|--------------------|------------------|------------------|------------------|
| VOCGAINS | .025 a*<br>(.006)b |                  |                  |                  |
| DEVGAINS | .002<br>(.000)     |                  |                  |                  |
| ACADEMIC | .022<br>(.006)     | .016<br>(.007)   |                  |                  |
| PEOPLE   | .058 **<br>(.009)  | .024<br>(.006)   |                  |                  |
| QECLUB   | .020<br>(.001)     | .007<br>(.000)   |                  |                  |
| QEUNION  | -.003<br>(-.000)   | -.003<br>(-.001) |                  |                  |
| QEWRITE  | -.009<br>(-.000)   | -.011<br>(-.001) |                  |                  |
| TIMESCHL | .009<br>(.005)     | .016<br>(.014)   |                  |                  |
| QE1      | .013<br>(.000)     | .029<br>(.002)   |                  |                  |
| CLASS    | .017<br>(.011)     | .018<br>(.020)   | -.001<br>(-.003) | -.015<br>(-.058) |
| ADVDEG   | .016<br>(.016)     | -.024<br>(-.040) | -.052<br>(-.217) | -.102<br>(-.604) |
| PARGRAD  | .027<br>(.016)     | .021<br>(.020)   | -.003<br>(-.006) | -.020<br>(-.070) |

a Standardized coefficients

b Unstandardized coefficients

\* P &lt; .05

\*\* P &lt; .01

because the homogeneous nature of the violations precluded its use. A large percentage (44.75%) of the offenses were visitation violations with the remaining violations scattered across categories.

Approximately ten percent (10%) of the variance in the dependent variable, disciplinary status, was explained by the path model. The path coefficients of the three significant direct effects and the two significant indirect effects accounted for fifty-six percent (56%) of this explained variance.

Chapter Five includes a discussion of the results and recommendations for further research.

## CHAPTER FIVE

### Discussion, Summary, and Recommendations

The focus of this study was to construct and test a causal model of college student disciplinary status. In the construction of the model, the selection of the variables was driven by student involvement and control theory concepts. The inclusion of variables in the model was limited by the use of the College Student Experiences Questionnaire (CSEQ) as the sole source of information on the sample.

### Discussion of the Results

Year in college as a direct influence on disciplinary status was an expected finding. It was consistently significant in other studies of student offenders (Bazik & Meyering, 1965; Cummins, 1966; Lenning, 1970; Janosik, Davis & Spencer, 1985). This suggests that the maturity level and the developmental status of student offenders may be the underlying reason for the variable's continued significance over the years. As students resolve issues related to managing emotions, developing competencies, and establishing a stable identity, they are more likely to be able to

understand and respect limits on behavior imposed by the campus community.

The other background variable that proved significant was parent's education level. Its direct relationship to the dependent variable was negative. This indicated that non-offenders were more likely to have a parent or parents with a college degree than were offenders. One reason for this finding may be that college educated parents are in a better position to transmit the behavior expectations of campus living than are parents who did not complete college. This anticipatory socialization may act as a social control for the non-offender group.

Person-environment fit appears the best explanation for the significant effect of the students' assessment of starting at the same college again. Interactionism posits that behavior may be explained or predicted by the degree to which a person's needs and expectations are compatible with the characteristics of the environment. A good fit produces a positive effect on personal growth while a poor fit leads to stress and delinquency (Huebner, 1980).

Students who had positive feelings about the institution, in general, were less likely to be offenders. This finding was also important in that the effects of students' perceptions of the campus interpersonal environment

and their estimates of personal vocational gains on offender status were mediated by their satisfaction with the institution.

The indication from this study is that students who perceive a sense of helpfulness, encouragement, support, and openness on the part of other students or faculty and administrators and feel that they are making progress in acquiring career skills and knowledge have a more positive outlook about the institution which, in turn, decreases their chances of becoming offenders.

This suggests that the person-environment fit and student involvement have the potential to be targets for proactive interventions aimed at reducing student discipline problems.

Goal-directedness, opportunities for acceptance by peers and significant others, positive self-concept, and an acceptance of a conventional value system were cited by Reckless (1961) and Hirschi (1969) as comprising some of the personal and social controls that inhibit delinquent behavior. The preliminary indications from this study suggest that these concepts do have relevance to the disciplinary status of traditional college students.

An interesting result of the study was that the model did not work differently for males and females. Two



explanations are possible for this finding. One is that the nature of the offenses in the sample were not gender specific (i.e., commonly associated with males or females). The large number of visitation violations in the sample tend to support this explanation because visitation violations are not gender specific.

The second explanation may lie in the convergence of male and female behavior patterns in residence halls. Spencer (1981) noted that more aggressive behavior on the part of female students may be related to "learning" the behavior from males as a result of women competing and interacting on an equal level with males, which was not the case on many campuses (or in society) in the past. Positive gains for women may be complimented by some less desirable outcomes.

Despite the small percentage of the explained variance in the dependent variable or the few variables that had significant effects on offender status, the results merit attention when the study is placed in the proper context. The model was recursive; meaning that only linear relationships between variables relative to the dependent variable were examined. Second, the causal model was exploratory in nature, not a retest of an existing model of college student offender status.

It should be remembered that  $R^2$  is a measure of the goodness of fit of a linear model. As such, a small  $R^2$  (or an  $R^2$  of 0) does not mean that the variables in the model are inappropriate or that there is no association between them. It does indicate that the relationship between the variables is weak and not necessarily linear (Norusis, 1983).

Explaining human behavior is a complex, inexact task that may not lend itself to strictly linear models. However, without some research on the temporal ordering of variables relative to disciplinary status, more complex models hypothesizing reciprocal relationships between variables are difficult to estimate. Studies by Hepburn (1977) and Phillips & Kelly (1979) contrasted with a study by Liska & Reed (1985) illustrate this point. The Hepburn and Phillips and Kelly studies focused on identifying social control variables that inhibited delinquent behavior using linear models. Liska and Reed proposed that a reciprocal model might be a more appropriate way to look at the relationships between the variables because they assumed that delinquency is as likely to affect social control variables as social control variables are to affect delinquency.

Most studies of student offenders have centered on identifying demographic, or static, characteristics of offenders. With the exception of Leslie (1983), all have been

atheoretical. Therefore, the model tested in this study was an attempt to expand this research to include thinking about causal relationships between variables as they relate to offender status and to begin to lay the groundwork for developing more sophisticated models. The results appear more interesting viewed from this perspective.

### Summary

The exploratory nature of this study prevents any definitive conclusions; however, it has identified several avenues for further thought and research on the subject of student offenders.

Person-environment fit variables were found to impact upon disciplinary status. Although small in magnitude, these relationships suggest that the campus interpersonal environment, estimates of personal vocational gains, and the students' overall opinion about the institution are other ways to look at the origins of student discipline problems. This finding represents a departure from studies that focused only on identifying static demographic characteristics of these students.

Year in college remained a demographic characteristic that influenced offender status. Parent's education level,

another exogenous variable, also influenced offender status and was not included in previous studies. The influence of these variables indicates that background or demographic information may be the most consistent or available information on offender status readily accessible to practitioners. It may also suggest that certain students are predisposed to become offenders no matter what their campus experiences. The types of offenses in the sample and the convergence of male and female behavior on campus were offered as two possible explanations for the model not working differently for males and females.

A summary of the findings as they relate to the research questions posed in Chapter One are: (a) year in college, parents' education level, the interpersonal environment of the campus, students' assessment of their vocational gains, and students' satisfaction with their college choice were the background, social, and personal variables having direct or indirect effects upon disciplinary status; (b) the effects of these variables on disciplinary status were found to be the same for males and females; and, (c) the homogeneity of violations in the sample precluded additional comparisons.

The utility of these findings revolves around person-environment fit as previously mentioned. The results parallel the reported findings of other researchers on the potency

of the student/campus fit (Astin, 1968; Astin, 1975; Huebner, 1980) and suggest that disciplinary status can be added to the list of factors affected by the student/campus fit. For practitioners, the implications are that programs that foster positive interpersonal relationships on campus, that help students feel like they are making progress toward their career goals, and that help develop positive student perceptions about the institution can positively influence the disciplinary status of students. Making faculty and staff aware of this type of information may put an abstract concept like person-environment fit into more concrete terms for them and give them new ways to think about the impact of their relationships with students and the institution's role in providing quality student services programs for students.

#### Recommendations

Research related to student offenders should be extended in three areas. The causal model developed for this study needs to be tested in a different institutional setting. An ideal test would be at a small college to see if the generalizations about person-environment fit and offender status can be extended to campuses with very different milieus from the campus where this study was conducted.

Person-environment fit tends to be more critical at institutions with limited social and academic environments, therefore, a small college setting would provided an interesting test of the model.

The second recommendation is to maintain the involvement and control theory orientation of the model but to respecify the ordering of the variables. For example, it may make more sense to have the people and academic environment (belief) variables placed between the attachment, commitment, and involvement variables and the estimates of personal gains variables in the causal process. The development of a conventional belief system in the college environment may actually occur after attachment, commitment, and involvement has taken place rather than at the same time. Only further thought and research about the process will tell. The third recommendation is to explore the role of gender in offender status more thoroughly.

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## APPENDIX A. Letter of Introduction

DIVISION OF STUDENT AFFAIRS



VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

*Blacksburg, Virginia 24061*

OFFICE OF HOUSING AND RESIDENCE LIFE 100 EAST EGLESTON HALL (204) 961-6301

November 5, 1986

Dear Virginia Tech Student:

The attached questionnaire is designed to collect information about your experiences at Virginia Tech. This study is being conducted as part of a doctoral dissertation in conjunction with the Office of Housing and Residence Life. The results will be used to assist in the design of program interventions for specific student populations and will give residence life personnel a more comprehensive understanding of undergraduate life at Tech.

We are particularly interested in your responses because you were an on-campus resident during the 1985-86 academic year. Initially, the questionnaire may appear lengthy; however, you will find that 30 minutes will be more than enough time to complete it. You will also find it to be an excellent inventory of your involvement at Virginia Tech which may be helpful in organizing your thoughts as you prepare for interviews or writing your resume.

We would appreciate your completing and returning the questionnaire by November 21, 1986 to your Resident Advisor or in the enclosed stamped envelope (as appropriate). Your responses will be kept confidential. The other phases of this project depend upon the return of completed questionnaires, so your cooperation is important. Thank you for your time.

Sincerely,

Edward F. D. Spencer  
Director of Housing and Residence Life

Nancy E. Van Kuren  
Doctoral Candidate  
College of Education

/rnr



APPENDIX B. Reminder Postcard

November 13, 1986

Last week a questionnaire seeking information about your experiences at VA Tech was mailed or distributed to you. Your name was drawn from a sample of students who had or currently are living in the University's residence halls.

If you have already completed and returned it, thank you. If not, please do so today. Because the questionnaire was sent to a representative sample, it is extremely important that yours be included in the study if the results are to accurately reflect student experiences at Tech.

If by chance you did not receive a questionnaire or it was misplaced, please call \_\_\_\_\_ or \_\_\_\_\_ and ~~another~~ will be sent to you today.

Sincerely,

Edward F. D. Spencer  
Director of Housing

Nancy E. Van Kuren  
Doctoral Candidate

## APPENDIX C. Follow-up Letter



DIVISION OF STUDENT AFFAIRS

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Blacksburg, Virginia 24061

OFFICE OF HOUSING AND RESIDENCE LIFE 109 EGGLESTON HALL (703) 961-6204

December 2, 1986

Dear Virginia Tech Student:

About four weeks ago we wrote to you seeking information about your experiences at Virginia Tech. As of today we have not yet received your completed questionnaire.

We are writing to you again because the questionnaire was sent to a small, representative sample of Tech students. It is very important that your responses be included in the study if the results are to accurately reflect student experiences at Virginia Tech.

In the event that your original questionnaire has been misplaced, a replacement is enclosed. Please complete and return it by December 19, 1986. On campus students please return the completed questionnaire to your R.A. or to the Housing Office (109 E. Eggleston). Off campus students please use the enclosed stamped envelope.

Your cooperation is greatly appreciated.

Sincerely,

Edward F. D. Spencer  
Director of Housing and  
Residence Life

Nancy J. Van Kuren  
Doctoral Candidate  
College of Education

## APPENDIX D. Matrix of Total Effects

**Table A**  
**Matrix of Total Causal Effects**

|          | <u>OFFEND</u>      | <u>START</u>     | <u>VOCGAINS</u>  | <u>DEVGAINS</u>  |
|----------|--------------------|------------------|------------------|------------------|
| ISTART   | .203 a<br>(.126) b |                  |                  |                  |
| VOCGAINS | -.002<br>(-.000)   | .124<br>(.048)   |                  |                  |
| DEVGAINS | .028<br>(.005)     | .009<br>(.002)   |                  |                  |
| ACADEMIC | -.000<br>(-.000)   | .127<br>(.052)   | .131<br>(.137)   | .009<br>(.015)   |
| PEOPLE   | .031<br>(.005)     | .282<br>(.072)   | .182<br>(.119)   | .212<br>(.198)   |
| QECLUB   | -.008<br>(-.000)   | .096<br>(.012)   | .049<br>(.016)   | .055<br>(.025)   |
| QEUNION  | .106<br>(.010)     | -.017<br>(-.003) | -.021<br>(-.008) | -.011<br>(-.006) |
| QEWRITE  | -.042<br>(-.003)   | -.052<br>(-.006) | -.085<br>(-.025) | -.038<br>(-.016) |
| TIMESCHL | .099<br>(.052)     | .064<br>(.054)   | .132<br>(.282)   | -.013<br>(-.038) |
| QE1      | -.086<br>(-.003)   | .028<br>(.002)   | .198<br>(.027)   | .486<br>(.093)   |
| CLASS    | .191<br>(.128)     | -.006<br>(-.006) | .147<br>(.407)   | .130<br>(.510)   |
| ADVDEG   | .025<br>(.025)     | .064<br>(.105)   | -.111<br>(-.462) | -.011<br>(-.063) |
| PARGARD  | -.075<br>(-.045)   | .069<br>(.067)   | .024<br>(.059)   | .005<br>(.017)   |

a standardized total effect  
b unstandardized total effect

## APPENDIX E. Instrument

# COLLEGE STUDENT EXPERIENCES

The main purpose of this inquiry is to learn more about how students spend their time – in course work, in the library, in contacts with faculty, in extracurricular activities, in various social and cultural activities, and in using other facilities and opportunities that exist in the college setting.

The information obtained from you and from other students at many different colleges and universities will provide new insight to administrators, faculty members, and others who provide the resources and shape the programs that are meant to be of benefit for student learning and development within the college experience.

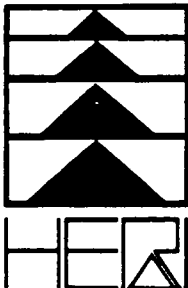
At first glance you may think it will take a long time to fill out this questionnaire, but you will find that it can be answered quite easily, that you can do it in less than an hour and perhaps only 30 to 45 minutes. You will find, too, when you have finished it, that your answers provide a kind of self-portrait of what you have been giving and getting in your college experience.

The ultimate benefits in this or any other survey depend on the thoughtful responses and willing participation from those who are asked to help. Your willingness to participate is important and very much appreciated.

We do not ask you to write your name anywhere in this questionnaire; but we do need to know where the reports come from, and that is why each questionnaire has a number on the back page – certain blocks of numbers tell us that those questionnaires have come from your college.

And, as you will see on the next page, we need to know a few things about you and where you come from, so that we can learn how activities might be related to age, sex, year in college, major field, whether one lives on the campus, whether one has a job, etc.

The questionnaire responses will be read by an electronic scanning device. The machine can only read messages given to it with a soft, **black lead pencil**. Please be careful in marking your responses. Erase cleanly any response you wish to change.



This questionnaire is distributed by the Higher Education Research Institute at UCLA, 405 Hilgard Avenue, Los Angeles, CA 90024. It is intended for use by any college or university that wishes to have an inventory of the campus experiences of its students.

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Second Edition

## BACKGROUND INFORMATION

**DIRECTIONS:** Indicate your response by filling in the appropriate space under each question.

**Age**

- 22 or younger  
 23-27  
 28 or older

**Sex**

- male  
 female

**Are you single or married?**

- single  
 married

**What is your classification in college?**

- freshman  
 sophomore  
 junior  
 senior  
 graduate student

**Did you enter college here or did you transfer here from another college?**

- entered here  
 transferred from another college

**Have you at any time while attending this college lived in a college dormitory, fraternity or sorority house, or other college housing?**

- yes  
 no

**Where do you now live during the school year?**

- dormitory or other college housing  
 fraternity or sorority house  
 private apartment or room within walking distance of the college  
 house, apartment, etc. away from the campus  
 with my parents or relatives

**At this college, up to now, what have most of your grades been?**

- A  
 A-, B-  
 B  
 B-, C-  
 C, C-, or lower

**Which of the following comes closest to describing your major field of study (or your expected major)?**

- Agriculture  
 Arts (art, music, theater, etc.)  
 Biological Sciences (biology, biochemistry, botany, zoology, etc.)  
 Business  
 Computer Science  
 Education (including physical education and recreation)  
 Engineering  
 Health related fields (nursing, physical therapy, health technology, etc.)  
 Humanities (literature, languages, history, philosophy, religion, etc.)  
 Physical Sciences (physics, chemistry, mathematics, astronomy, earth science, etc.)  
 Social Sciences (economics, political science, psychology, sociology, etc.)  
 Other: What?

- Undecided

**Did either of your parents graduate from college?**

- no  
 yes, both parents  
 yes, father only  
 yes, mother only

**When, or if, you graduate from college, do you expect to enroll for a more advanced degree?**

- yes  
 no

**Are you going to school full-time or part-time?**

- full-time  
 part-time

**During the time school is in session, about how many hours a week do you usually spend on activities that are related to your school work? This includes time spent in class and time spent studying.**

- about 50 hours a week or more  
 about 40 hours a week  
 about 30 hours a week  
 about 20 hours a week  
 less than 20 hours a week

**During the time school is in session, about how many hours a week do you usually spend working on a job?**

- none. I am not employed during the school year.
- about 10 hours or less
- about 15 hours
- about 20 hours
- about 30 hours
- more than 30 hours

**About how much of your college expenses this year are provided by your parents or family?**

- all or nearly all
- more than half
- less than half
- none or very little

**What is your racial or ethnic identification?**

- White, Caucasian
- Black
- Hispanic, Mexican-American, Puerto Rican
- Oriental or Asian
- Other: What? →

**How are you classified in the United States?**

- Citizen of the United States
  - Immigrant (permanent resident)
  - Non-immigrant
- If you are not a citizen of the United States, in what country are you a citizen? →

## COLLEGE ACTIVITIES

**DIRECTIONS:** In your experience at this college during the current school year, about how often have you done each of the following? Indicate your response by filling in one of the spaces to the left of each statement.

Very often  
 Often  
 Occasionally  
 Never

### Library Experiences

- Used the library as a quiet place to read or study materials you brought with you.
- Used the card catalogue to find what materials there were on some topic.
- Asked the librarian for help in finding material on some topic.
- Read something in the reserve book room or reference section.
- Used indexes (such as the Reader's Guide to Periodical Literature) to journal articles.
- Developed a bibliography or set of references for use in a term paper or other report.
- Found some interesting material to read just by browsing in the stacks.
- Ran down leads, looked for further references that were cited in things you read.
- Used specialized bibliographies (such as Chemical Abstracts, Psychological Abstracts, etc.).
- Gone back to read a basic reference or document that other authors had often referred to.

Very often  
 Often  
 Occasionally  
 Never

### Experiences with Faculty

- Talked with a faculty member.
- Asked your instructor for information related to a course you were taking (grades, make-up work, assignments, etc.).
- Visited informally and briefly with an instructor after class.
- Made an appointment to meet with a faculty member in his/her office.
- Discussed ideas for a term paper or other class project with a faculty member
- Discussed your career plans and ambitions with a faculty member
- Asked your instructor for comments and criticisms about your work.
- Had coffee, cokes, or snacks with a faculty member.
- Worked with a faculty member on a research project.
- Discussed personal problems or concerns with a faculty member

**DIRECTIONS:** In your experience at this college during the current school year, about how often have you done each of the following? Indicate your response by filling in one of the spaces to the left of each statement.

Very Often  
Often  
Occasionally  
Never

Course Learning

- Took detailed notes in class.
- Listened attentively in class meetings.
- Underlined major points in the readings.
- Tried to see how different facts and ideas fit together.
- Thought about practical applications of the material.
- Worked on a paper or project where you had to integrate ideas from various sources.
- Summarized major points and information in your readings or notes.
- Tried to explain the material to another student or friend.
- Made outlines from class notes or readings.
- Did additional readings on topics that were introduced and discussed in class.

Very Often  
Often  
Occasionally  
Never

Art, Music, Theater

- Talked about art (painting, sculpture, architecture, artists, etc.) with other students at the college.
- Gone to an art gallery or art exhibit on the campus.
- Read or discussed the opinions of art critics.
- Participated in some art activity (painting, pottery, weaving, drawing, etc.).
- Talked about music (classical, popular, musicians, etc.) with other students at the college.
- Attended a concert or other music event at the college.
- Read or discussed the opinions of music critics.
- Participated in some music activity (orchestra, chorus, etc.).
- Talked about the theater (plays, musicals, dance, etc.) with other students at the college.
- Seen a play, ballet, or other theater performance at the college.
- Read or discussed the opinions of drama critics.
- Participated in or worked on some theatrical production (acted, danced, worked on scenery, etc.).

Very Often  
Often  
Occasionally  
Never

Student Union

- Had meals, snacks, etc. at the student union or student center.
- Looked at the bulletin board for notices about campus events.
- Met your friends at the student union or student center.
- Sat around in the union or center talking with other students about your classes and other college activities.
- Used the lounge(s) to relax or study by yourself.
- Seen a film or other event at the student union or center.
- Attended a social event in the student union or center.
- Heard a speaker at the student union or center.
- Played games that were available in the student union or center (ping-pong, cards, pool, pinball, etc.).
- Used the lounge(s) or meeting rooms to meet with a group of students for a discussion.

Very Often  
Often  
Occasionally  
Never

Athletic and Recreation Facilities

- Set goals for your performance in some skill.
- Followed a regular schedule of exercise, or practice in some sport, on campus.
- Used outdoor recreational spaces for casual and informal individual athletic activities.
- Used outdoor recreational spaces for casual and informal group sports.
- Used facilities in the gym for individual activities (exercise, swimming, etc.).
- Used facilities in the gym for playing sports that require more than one person.
- Sought instruction to improve your performance in some athletic activity.
- Played on an intramural team.
- Kept a chart or record of your progress in some skill or athletic activity.
- Played in any varsity sport or athletic event.

**DIRECTIONS:** In your experience at this college during the current school year, about how often have you done each of the following? Indicate your response by filling in one of the spaces to the left of each statement.

Very often  
Often  
Occasionally  
Never

Clubs and Organizations

- Looked in the student newspaper for notices about campus events and student organizations.
- Attended a program or event put on by a student group.
- Read or asked about a club, organization, or student government activity.
- Attended a meeting of a club, organization, or student government group.
- Voted in a student election.
- Discussed policies and issues related to campus activities and student government.
- Worked in some student organization or special project (publications, student government, social event, etc.).
- Discussed reasons for the success or lack of success of student club meetings, activities, or events.
- Worked on a committee.
- Met with a faculty adviser or administrator to discuss the activities of a student organization.

Very often  
Often  
Occasionally  
Never

Experience in Writing

- Used a dictionary or thesaurus to look up the proper meaning of words.
- Consciously and systematically thought about grammar, sentence structure, paragraphs, word choice, and sequence of ideas or points as you were writing.
- Wrote a rough draft of a paper or essay and then revised it yourself before handing it in.
- Spent at least five hours or more writing a paper (not counting time spent in reading or at the library).
- Asked other people to read something you wrote to see if it was clear to them.
- Referred to a book or manual about style of writing, grammar, etc.
- Revised a paper or composition two or more times before you were satisfied with it.
- Asked an instructor for advice and help to improve your writing.
- Made an appointment to talk with an instructor who had criticized a paper you had written.
- Submitted for publication an article, story, or other composition you had written.

Very often  
Often  
Occasionally  
Never

Personal Experiences

- Told a friend why you reacted to another person the way you did.
- Discussed with other students why some groups get along smoothly, and other groups don't.
- Sought out a friend to help you with a personal problem.
- Elected a course that dealt with understanding personal and social behavior.
- Identified with a character in a book or movie and wondered what you might have done under similar circumstances.
- Read articles or books about personal adjustment and personality development.
- Taken a test to measure your abilities, interests, or attitudes.
- Asked a friend to tell you what he/she really thought about you.
- Been in a group where each person, including yourself, talked about his/her personal problems.
- Talked with a counselor or other specialist about problems of a personal nature.

Very often  
Often  
Occasionally  
Never

Student Acquaintances

- Made friends with students whose academic major field was very different from yours.
- Made friends with students whose interests were very different from yours.
- Made friends with students whose family background (economic and social) was very different from yours.
- Made friends with students whose age was very different from yours.
- Made friends with students whose race was different from yours.
- Made friends with students from another country.
- Had serious discussions with students whose philosophy of life or personal values were very different from yours.
- Had serious discussions with students whose religious beliefs were very different from yours.
- Had serious discussions with students whose political opinions were very different from yours.
- Had serious discussions with students from a country different from yours.



**DIRECTIONS:** In your experience at this college during the current school year, about how often have you done each of the following?

- Science/Technology
- Very often  
Often  
Occasionally  
Never
- Memorized formulas, definitions, technical terms
- Tried to express a set of relationships in mathematical terms
- Tested your understanding of some scientific principle by seeing if you could explain it to another student.
- Read articles (not assigned) about scientific theories or concepts
- Practiced to improve your skill in using some laboratory equipment
- Showed a classmate how to use a piece of scientific equipment
- Attempted to explain an experimental procedure to a classmate
- Went to an exhibit or demonstration of some new scientific device
- Worked on a paper or project where you used a computer
- Used a computer to assist in course learning (language skills, math skills, etc.)
- Wrote a program to analyze data on a computer.
- Sought out-of-class instruction in ways to use computers.

**DIRECTIONS:** If you are now living in a dormitory or fraternity/sorority, about how often have you done each of the following in that residence unit during the current school year? Indicate your response by filling in one of the spaces to the left of each statement. If you do not live in a campus residence, omit these items.

- Dormitory or Fraternity/Sorority
- Very often  
Often  
Occasionally  
Never
- Had lively conversations about various topics during dinner in the dining room or cafeteria
- Gone out with other students for late night snacks
- Offered to help another student (with course work, errands, favors, advice, etc.) who needed some assistance
- Participated in bull sessions that lasted late into the night.
- Asked others for assistance in something you were doing
- Borrowed things (clothes, records, posters, books, etc.) from others in the residence unit.
- Attended social events put on by the residence unit.
- Studied with other students in the residence unit
- Helped plan or organize an event in the residence unit
- Worked on some community service or fund raising project with other students in the residence unit.

## CONVERSATIONS

**DIRECTIONS:** In conversations with other students at this college during the current school year, about how often have you talked about each of the following?

- Topics of Conversation
- Very often  
Often  
Occasionally  
Never
- Job prospects, money, careers
- Movies and popular music
- Social events, parties
- Boyfriends, girlfriends
- Current events in the news.
- Major social problems such as peace, human rights, equality, justice.
- Different life styles and customs.
- The ideas and views of other people such as writers, philosophers, historians.
- Fine arts - painting, theatrical productions, ballet, symphony, etc.
- Science - theories, experiments, methods.
- Computers and other technologies.
- Social and ethical issues related to science and technology such as energy, pollution, chemicals, genetics, military use.

In these conversations with other students, about how often have you done each of the following?

- Information in Conversations
- Very often  
Often  
Occasionally  
Never
- Referred to knowledge you had acquired in your reading
- Explored different ways of thinking about the topic
- Referred to something a professor said about the topic.
- Subsequently read something that was related to the topic.
- Changed your opinion as a result of the knowledge or arguments presented by others
- Persuaded others to change their minds as a result of the knowledge or arguments you cited

**READING/WRITING**

During the current school year, about how many books have you read? Fill in one space in each column.

Textbooks or assigned books

Non-assigned books

- none
- fewer than 5
- between 5 and 10
- between 10 and 20
- more than 20

During the current school year, about how many written reports have you made? Fill in one space in each column.

Essay exams in your courses

Term papers or other written reports

- none
- fewer than 5
- between 5 and 10
- between 10 and 20
- more than 20

**OPINIONS ABOUT COLLEGE**

How well do you like college?

- I am enthusiastic about it.
- I like it.
- I am more or less neutral about it.
- I don't like it.

If you could start over again, would you go to the same college you are now attending?

- Yes, definitely
- Probably yes
- Probably no
- No, definitely

What is your opinion about the following statement: "If students expect to benefit from what this college or university has to offer, they have to take the initiative."

- Strongly agree
- Agree
- Disagree
- Strongly disagree

**THE COLLEGE ENVIRONMENT**

Colleges differ from one another in the extent to which they emphasize or stress various aspects of students' development. Thinking of your own experience at this college, to what extent do you feel that each of the following is emphasized? The responses are numbered from 7 to 1, with the highest and lowest points described. Fill in the space of whichever number best indicates your impression on this seven-point rating scale.

Emphasis on the development of academic  
scholarly, and intellectual qualities

Strong emphasis        Weak emphasis

Emphasis on the development of esthetic,  
expressive, and creative qualities

Strong emphasis        Weak emphasis

Emphasis on being critical,  
evaluative, and analytical

Strong emphasis        Weak emphasis

Emphasis on the development of vocational  
and occupational competence

Strong emphasis        Weak emphasis

Emphasis on the personal relevance  
and practical values of your courses

Strong emphasis        Weak emphasis

The next three ratings refer to relationships among people at the college. Again, thinking of your own experience, how would you rate these relationships on the seven-point scales?

|  |  |   |
|--|--|---|
| Friendly, Supportive,<br>Sense of belonging ☺          | Relationship with other students,<br>student groups, and activities<br>☹ ☺ ☻ ☻ ☻ ☻ ☹ | ☹ Competitive, Uninvolved,<br>Sense of alienation |
|  |  |   |
| Approachable, Helpful,<br>Understanding, Encouraging ☺ | Relationships with faculty members<br>☹ ☺ ☻ ☻ ☻ ☻ ☹                                  | ☹ Remote, Discouraging,<br>Unsympathetic          |
|  |  |   |
| Helpful, Considerate,<br>Flexible ☺                    | Relationships with administrative<br>personnel and offices<br>☹ ☺ ☻ ☻ ☻ ☻ ☹          | ☹ Rigid, Impersonal,<br>Bound by regulations      |

**ESTIMATE OF GAINS**

**DIRECTIONS:** In thinking over your experiences in college up to now, to what extent do you feel you have gained or made progress in each of the following respects? Indicate your response by filling in one of the spaces to the left of each statement.

|   |  |
|---|--|
| <p style="text-align: right; margin-right: 10px;">                 Very much<br/>                 ☺<br/>                 Quite a bit<br/>                 ☺<br/>                 Some<br/>                 ☺<br/>                 Very little<br/>                 ☺             </p> <p>☺☺☺☺ Vocational training – acquiring knowledge and skills applicable to a specific job or type of work.</p> <p>☺☺☺☺ Acquiring background and specialization for further education in some professional, scientific, or scholarly field.</p> <p>☺☺☺☺ Gaining a broad general education about different fields of knowledge.</p> <p>☺☺☺☺ Gaining a range of information that may be relevant to a career.</p> <p>☺☺☺☺ Developing an understanding and enjoyment of art, music, and drama.</p> <p>☺☺☺☺ Broadening your acquaintance and enjoyment of literature.</p> <p>☺☺☺☺ Writing clearly and effectively.</p> <p>☺☺☺☺ Acquiring familiarity with the use of computers.</p> <p>☺☺☺☺ Becoming aware of different philosophies, cultures, and ways of life.</p> <p>☺☺☺☺ Developing your own values and ethical standards.</p> <p>☺☺☺☺ Understanding yourself – your abilities, interests, and personality.</p> | <p style="text-align: right; margin-right: 10px;">                 Very much<br/>                 ☺<br/>                 Quite a bit<br/>                 ☺<br/>                 Some<br/>                 ☺<br/>                 Very little<br/>                 ☺             </p> <p>☺☺☺☺ Understanding other people and the ability to get along with different kinds of people.</p> <p>☺☺☺☺ Ability to function as a team member.</p> <p>☺☺☺☺ Developing good health habits and physical fitness.</p> <p>☺☺☺☺ Understanding the nature of science and experimentation.</p> <p>☺☺☺☺ Understanding new scientific and technical developments.</p> <p>☺☺☺☺ Becoming aware of the consequences (benefits/hazards/dangers/values) of new applications in science and technology.</p> <p>☺☺☺☺ Ability to think analytically and logically.</p> <p>☺☺☺☺ Quantitative thinking – understanding probabilities, proportions, etc.</p> <p>☺☺☺☺ Ability to put ideas together, to see relationships, similarities, and differences between ideas.</p> <p>☺☺☺☺ Ability to learn on your own, pursue ideas, and find information you need.</p> |
|---|--|

Since the electronic scanning device can only read pencil marks, please fill in the grid corresponding to the number printed above it. This number tells us the name of your college and that you are one of the students from that college.

|           |   |   |   |   |
|-----------|---|---|---|---|
| No. 62590 |   |   |   |   |
| ①         | ② | ③ | ④ | ⑤ |
| ①         | ② | ③ | ④ | ⑤ |
| ②         | ② | ③ | ④ | ⑤ |
| ③         | ④ | ④ | ④ | ④ |
| ④         | ⑤ | ⑤ | ⑤ | ⑤ |
| ⑤         | ⑥ | ⑥ | ⑥ | ⑥ |
| ⑥         | ⑦ | ⑦ | ⑦ | ⑦ |
| ⑦         | ⑧ | ⑧ | ⑧ | ⑧ |
| ⑧         | ⑨ | ⑨ | ⑨ | ⑨ |
| ⑨         | ⑩ | ⑩ | ⑩ | ⑩ |

Thank you for your participation in this survey.

**ADDITIONAL QUESTIONS**

1. A B C D E
2. A B C D E
3. A B C D E
4. A B C D E
5. A B C D E
6. A B C D E
7. A B C D E
8. A B C D E
9. A B C D E
10. A B C D E

APPENDIX F. Factor Analyses Results

TABLE A  
Rotated Factor Analysis Results for Quality of Effort Scales

|          | FACTOR 1 | FACTOR 2 | FACTOR 3 | FACTOR 4 |
|----------|----------|----------|----------|----------|
| QELIB    | .02411   | .73084   | .15196   | .30163   |
| QEFAC    | .17211   | .66022   | .30163   | -.07252  |
| QECOURSE | .56583   | .39100   | -.09440  | .16934   |
| QEUNION  | .11365   | .18037   | .83382   | .14491   |
| QEAMT    | .34670   | .32396   | .38089   | .02502   |
| QEREC    | -.03750  | .29781   | .11647   | .60697   |
| QECLUB   | .24012   | .03851   | .79678   | .03887   |
| QEWRITE  | .35479   | .73361   | -.03263  | .10261   |
| QEPARSEX | .74200   | .19706   | .13619   | -.23705  |
| QEACQU   | .65898   | .16073   | .29108   | .02933   |
| QESCITEC | .25156   | -.01422  | .04668   | .82761   |
| QETOPICS | .77651   | -.00887  | .15055   | .27876   |
| QEINFO   | .69959   | .16441   | .28680   | .22454   |

LEGEND:

- QELIB =Library
- QEFAC =Faculty
- QECOURSE =Course Work
- QEUNION =Student Union
- QEAMT =Art, Music, Theater
- QEREC =Recreation
- QECLUB =Clubs and Organizations
- QEWRITE =Writing Experiences
- QEPARSEX =Personal Experiences
- QEACQU =Student Acquaintances
- QESCITEC =Science and Technology
- QETOPICS =Topics of Conversation
- QEINFO =Information in Conversations

TABLE B

Rotated Factor Analysis for the College Environment Items

|         | FACTOR 1 | FACTOR 2 |
|---------|----------|----------|
| CEADMIN | .79668   |          |
| CEFAC   | .75967   |          |
| CEACT   | .54789   | .23629   |
| CEPRAC  | .50157   | .41984   |
| CEANALY |          | .82284   |
| CEINTEL |          | .72795   |
| CECREA  | .40703   | .51902   |
| CEVOC   | .33756   | .49409   |

Note: Values below .20000 were suppressed

## LEGEND:

CEADMIN =Relationship with Administration  
 CEFAC =Relationship with Faculty  
 CEACT =Relationships with Student and Activities  
 CEPRAC =Relevance of Coursework  
 CEANALY =Emphasis on Being Analytical  
 CEINTEL =Emphasis on Scholarly Activities  
 CECREA =Emphasis on Creative Qualities  
 CEVOC =Emphasis on Developing Vocational Competence

TABLE C

## Rotated Factor Analysis Results for the Estimate of Gains Items

|          | FACTOR 1 | FACTOR 2 | FACTOR 3 | FACTOR 4 | FACTOR 5 | FACTOR 6 |
|----------|----------|----------|----------|----------|----------|----------|
| GNETH    | .76704   |          |          |          |          |          |
| GNPERS   | .74100   |          |          |          |          | .32603   |
| GNPEOP   | .64484   |          |          |          |          | .37177   |
| GNCULT   | .59601   |          |          |          | .33657   |          |
| GNDIFF   | .57760   |          | .23264   |          | .22620   |          |
| GNSCITEC |          | .86128   | .23073   |          |          |          |
| GNSCIEEX |          | .82794   | .22494   |          |          |          |
| GNHAZARD |          | .79127   | .22581   |          |          |          |
| GNANALY  |          | .42656   | .71045   |          |          |          |
| GNSIMDIF | .32270   |          | .68339   |          |          |          |
| GNAQUANT |          | .36281   | .67681   | .23196   |          |          |
| GNCOMP   | -.20282  |          | .50058   | .33685   |          |          |
| GNIDEAS  | .46311   |          | .49237   |          |          |          |
| GNVOC    |          |          |          | .78098   |          | .20845   |
| GNCARBER | .26575   |          |          | .72077   |          |          |
| GNPSS    |          | .34782   |          | .68919   |          |          |
| GNLIT    | .22095   |          |          |          | .83302   |          |
| GNWRIT   |          |          |          |          | .73530   |          |
| GNAMD    | .22304   |          | .33541   |          | .67840   |          |
| GNFIT    |          |          |          |          |          | .78237   |
| GNTEAM   | .22907   |          | .22028   |          |          | .72375   |

Note: Values below .20000 were suppressed

## LEGEND:

GNETH =Ethical Standards  
GNPERS =Understanding Self  
GNPEOP =Understanding Others  
GNCULT =Understanding Other Cultures  
GNHAZARD=Hazards of Technology/  
GNSIMDIF=Similarities and Differences  
GNLIT =Literature  
GNCOMP =Use of Computers  
GNIDEAS =Pursuing Own Ideas  
GNVOC =Vocational Training  
GNCARBER =Career  
GNAMD =Art, Music, Drama  
GNTEAM =Team Member  
GNWRIT =Writing  
GNDIFF =Diff. Fields of Knowledge  
GNPSS =Professional Field  
GNSCITEC=Science and Tech.  
GNSCIEEX =Nature of Science  
GNANALY =Analytical Thinking  
GNAQUANT=Quantitative Thinking  
GNFIT =Physical Fitness

TABLE D

Factor Analysis for Opinions About College Scale

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|          | FACTOR 1 |
|----------|----------|
| ILIKECOL | .75910   |
| ISTART   | .82576   |
| IOPINIT  | .64011   |

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## LEGEND:

ILIKECOL =How Well Do You Like College?

ISTART =Would You Go To The Same College?

IOPINIT =Agreement About Benefits From College

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