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The effects of developmental task achievement on selected aspects of the college experience of Black freshman college women

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THE EFFECTS OF DEVELOPMENTAL TASK ACHIEVEMENT ON
SELECTED ASPECTS OF THE COLLEGE EXPERIENCE
OF BLACK FRESHMAN COLLEGE WOMEN

A DISSERTATION ABSTRACT
SUBMITTED TO THE FACULTY OF THE SCHOOL OF EDUCATION,
ATLANTA UNIVERSITY IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

BY
PEGGY L. WHITE

ATLANTA UNIVERSITY
ATLANTA, GEORGIA
JULY, 1984
Purpose

The purpose of this study was to ascertain the developmental status of a selected group of Black freshman college women; and to determine if there was a relationship between their developmental status and their academic performance, interpersonal functioning and curriculum adjustment.

Hypotheses

In this study nine hypotheses were tested. Hypotheses one and two were tested using the Fisher t-test for uncorrelated samples to determine the influence of the awareness of developmental status on academic performance and interpersonal functioning. Hypotheses three, four and five were tested using the Pearson product moment coefficient of correlation to determine the degree of relationship between autonomy—developmental status and academic performance. The Pearson r was used to test hypotheses six, seven and eight, to determine the degree of relationship between autonomy—developmental status, interpersonal relationships—developmental status and interpersonal functioning. The Chi-square test of significance and the Fisher exact probability test were used in testing hypothesis nine to determine the influence of the awareness of developmental status upon curriculum adjustment. The .05 level of significance was the criterion for acceptance of each null hypothesis.
Procedure

One hundred and sixteen Black female freshman college students were the participants in this study. There were fifty-three subjects in the experimental group and sixty-three subjects in the control group. A stratified random sample of 150 students was selected from the 1982-83 entering freshman class in a predominantly Black southern liberal arts college for women. Due to lack of availability of data, thirty-four of these students had to be eliminated.

Pre- and post-investigation data were collected from the experimental and the control groups. These consisted of developmental status scores from the Student Developmental Task Inventory; inventoried vocational interests from the Strong-Campbell Interest Inventory; intended curriculum (major) and vocational choice from the American Council on Education Questionnaire and the New Student Slip; interpersonal functioning scores from the Attitude Questionnaire on Interpersonal Relationships; age, SAT or ACT scores, grade point averages, second semester majors, and activities in which each subject participated from college records. Early in the spring semester, the Student Developmental Task Inventory results were interpreted to the subjects in the experimental group in small groups as the treatment for this study by five trained graduate assistants who served as counselors.
Conclusions

Conclusions drawn from the findings of this study were as follows:

1. Freshman college females who are aware of their developmental status are very likely to function interpersonally at a higher level than those who are not aware. This awareness, however, is not likely to be reflected in their academic performance.

2. Neither autonomy, purpose nor interpersonal relationships-developmental status were predictors of academic performance.

3. There was a significant relationship between autonomy, purpose and interpersonal relationships-developmental status and interpersonal functioning for the control group subjects but only interpersonal relationships-developmental status was significantly related to interpersonal functioning for the experimental group subjects.

4. Neither the frequency nor the direction of curricular adjustment was significantly influenced by awareness of developmental status of the freshman college females in this study.

5. Of the variables considered in this study relative to the student profile, only combined SAT scores demonstrated the potential to be used as a predictor of academic performance.
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BY
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The writer is indebted to the Division of Student Life and students at Spelman College for making this study possible.

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CHAPTER I

INTRODUCTION

College freshmen, according to Williams, are those persons entering college for the first time who are usually about 18 years of age. These students are often under stress as a result of their transition from high school to college and in the first years of separation from the family. They are often confronted with difficulty in making friends, dating, relating to their roommates, organizing their time, and finding their way around campus.¹

Super characterizes them vocationally as being in the exploratory stage of development. As such they are characteristically experiencing self-examination and role tryouts. They are occupationally exploring in school, leisure activities and part-time work.²

According to Blocher, the social world of these late adolescent-early adults increases in size as new social roles are encountered. The complexities of their recently

¹Willie Williams, "Efficacy of Group Counseling on the Academic Performance of Black College Freshmen with Low-Predicted Grade Point Averages" (Doctoral dissertation, University of Georgia, 1971), p. 5.

discovered sexuality only serve to compound their many interpersonal relationships. The societal expectations of many of the new roles conflict and cause these emerging adults to develop a need to alter their present behavior and master new learnings.  

In order for these emerging adults to attain their optimum level of development during their college years, it is important for them to identify their current levels of functioning in basic developmental areas. One of the ways to do this is through the developmental task achievement approach. Havighurst describes a developmental task as "a task which arises at or about a certain period in the life of an individual, successful achievement of which leads to happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by society and difficulty with later tasks."  

According to Miller and Prince, this approach involves assisting the student in (1) assessing learnings and behaviors that have already been accomplished; (2) formulating goals and behavioral objectives for future growth; and (3) identifying programs or activities that can be adapted to the student's


current stage of development in order to accomplish the stated goals and objectives.\textsuperscript{1}

The investigator has been involved in the development of college-age students for 13 years. The developmental task approach seems to offer a systematic way of assisting them to continue their maturity in social, emotional, educational and other ways. The approach seems to provide the potential for concurrently enhancing their sense of independence and self-reliance. If the developmental tasks and subtasks which relate most positively to the respective aspects of the college experience could be identified, students could be more effectively assisted by the student affairs staff in accomplishing the developmental goals set by them while in college.

In adopting this approach, the Division of Student Life at Spelman College has included among its specific program objectives the following:

1. To assess students' skills and competencies as they relate to the three developmental tasks outlined herein: the development of autonomy, purpose, and mature interpersonal relationships . . . ;

2. To strengthen students' skills and competencies by helping them gain an understanding of where they are along the various developmental task

continua, and decide and plan for future development. . . .

The freshman year, Phase 1, of the four phase Enrichment and Support Program is geared toward promoting awareness.

Freshman college students, like younger adolescents are often preoccupied with the concern of how they are progressing toward becoming mature adults. It was assumed that a knowledge (awareness) of their developmental status would have a positive impact on academic performance, interpersonal functioning, quality of decision making, and would generally assist them in giving direction to their lives.

Evolution of the Problem

As a general rule, most student affairs personnel have accepted their primary function as being aligned with the total development of the students. More specifically, the modus operandi of counseling or counseling services has tended to be the "whole person" approach. This is no less true for the Office of the Dean of Student Life and the Counseling Services at the institution with which the writer has been affiliated for the past 13 years. The stated objective of the Counseling Services has been to assist students to enhance their total educational,

vocational, personal and social development. There has been a continued quest for better ways to do this.

Much of the investigator's experience has been in counseling with students at the freshman level. At this stage of late adolescence they are greatly involved in making the transition from high school to college and from late adolescence to early adulthood. The problems of adjustment which occur during this period have been well documented. Sanford pointed out that,

> When we consider some of the common features of the freshman's situation—his absence from home, the academic requirements and expectations, the presence of a student society and culture to which he must adapt himself—it seems that we are justified in thinking of his entrance into college as bringing about a developmental crisis in Erikson's sense of this term.¹

Ginott described the personality cycle of this teenager as going from organization (childhood) through disorganization (adolescence) to reorganization (adulthood).²

Through the years, this investigator has generally found the problems of freshmen to be primarily related to academic performance, interpersonal relationships and choice of major/career. Academic performance has maintained


²Harem Ginott, Between Parent and Teenager (New York: Macmillan Company, 1969), p. 25,
first place among the problems (over 40 percent of students on the 1981-82 first semester probation list were classified as freshmen). With the advent of more career awareness and a more heterogeneous student population, the problems of choice major/career and interpersonal relationships (relationships with peers, roommates, opposite sex) have increased substantially.

While the college has sought to have its impact upon these problem areas by providing supportive services—remedial, preventive and developmental—through various approaches such as freshman orientation, tutorial services, freshman advisory services, the roommate starter kit, developmental workshops and seminars; a large number of students have continued to be "disorganized" in their efforts to grow and mature. Recent efforts to assist them have been characterized by increased emphasis upon the developmental approach with such strategies as a four-year sequential career development program and residential and commuter counseling with the use of an instrument called the Student Developmental Task Inventory which assesses students' development.

The writer was first introduced to the developmental task achievement approach to counseling while attending a two-week workshop on student development during the summer of 1977. It was felt that if a relationship was found to exist between developmental status and problem areas in the
college experience, such information could be used in counseling and in planning programs to undergird students and assist each to maximize her development in all areas.

Essentially this study was conducted to ascertain the developmental status of a selected group of Black freshman college women; and to determine if there was a relationship between their developmental status and their academic performance, interpersonal functioning and curriculum adjustment.

Purpose of the Study

The purpose of this study was threefold:

1. To determine the influence, if any, of the awareness of developmental status on academic performance, interpersonal functioning, and curriculum adjustment of freshman college women.

2. To determine the degree of relationship, if any, between developmental status, academic performance and interpersonal functioning among freshman college women.

3. To identify and initiate a developmental profile for a selected group of Black freshman college women.

Hypotheses

The following null hypotheses were tested as an objective basis for operationalizing the purpose of this study.

1. There is no statistically significant difference between the mean academic performance of subjects who are aware of their developmental status and those who are not.
2. There is no statistically significant difference between the mean interpersonal functioning of subjects who are aware of their developmental status and those who are not.

3. There is no statistically significant relationship between the mean autonomy-developmental status and the mean academic performance of subjects in the experimental and the control groups.

4. There is no statistically significant relationship between the mean purpose-developmental status and the mean academic performance of subjects in the experimental and the control groups.

5. There is no statistically significant relationship between the mean interpersonal relationship-developmental status and the mean academic performance of subjects in the experimental and the control groups.

6. There is no statistically significant relationship between the mean autonomy-developmental status and the mean interpersonal functioning of subjects in the experimental and the control groups.

7. There is no statistically significant relationship between the mean purpose-developmental status and the mean interpersonal functioning of subjects in the experimental and the control groups.

8. There is no statistically significant relationship between the mean interpersonal relationship-developmental status and the mean interpersonal functioning of subjects in the experimental and the control groups.

9. There is no statistically significant difference in the direction of curriculum adjustment among subjects who are aware of their developmental status and those who are not.
Significance of the Study

It was expected that the results of this study would contribute to the understanding that student affairs workers, faculty and administrators at the college level have of their student bodies; and that it would contribute to the general body of knowledge about developmental task achievement, particularly that of blacks and women. Specifically, the anticipated contributions to educational research were as follows:

1. The identification of information about the student's development that would support the counseling process.

2. The identification of information about the student population and their developmental levels that would assist the professional student affairs staff in designing more effective programs and targeting intervention strategies more accurately toward individuals and groups.

3. The establishment of a procedure for developing a sample developmental profile of entering classes that would facilitate advanced planning.

4. The obtaining of information that would have possible implications for the identification and recruitment of prospective students.

Assumptions and Limitations of the Study

The researcher was aware that there would be other activities taking place during the time of the study--e.g., skill-building workshops and seminars offered through
Freshman Orientation and the Division of Student Life—which might influence the effect of the treatment. The writer could not control the effects of general activities on all students. However, it was assumed that these activities were available to all of the subjects (experimental and control) and would have a similar effect on all of them. It was further assumed that the treatment in this study was more specific and would have a direct effect on the experimental subjects.

In order to control for this factor the researcher obtained a list of the activities in which each subject participated. These were examined as a part of the results of the study.

A further limitation was the use of a self-report instrument for which the researcher was not able to control intentional or unintentional distortion of the subjects' responses. However, special consideration was given to the construction of the questionnaire in an attempt to minimize the effects. The instrument was pilot tested with a group of similar students who were not involved in the study.

Definition of Terms

The following terms were operationally defined herein to clarify their use in this study:

1. Awareness—the level of understanding about one's development the student gets from
having the scores on the Student Developmental Task Inventory interpreted by a professional counselor.

2. **Developmental status** (synonymous with developmental task achievement) -- a measure of the level of accomplishment of certain behaviors as indicated by the student's scores on the Student Developmental Task Inventory, including:

   a) **Interpersonal Relationships-Developmental Status** -- behaviors related to Intimate Relationships with the Opposite Sex (IRS), Mature Relationships with Peers (MRP), and Tolerance (TOL).

   b) **Purpose-Developmental Status** -- behaviors related to Appropriate Educational Plans (EP), Mature Career Plans (CP), and Mature Lifestyle Plans (LP).

   c) **Autonomy-Developmental Status** -- behaviors related to Emotional Autonomy (EA), Instrumental Autonomy (IA), and Interdependence (ID).

3. **Academic performance** -- the second semester grade point average (G.P.A.) of the student.

4. **Interpersonal functioning** -- the self report by the student of the level of personal behavior and attitude toward others as indicated by scores on the Attitude Questionnaire on Interpersonal Relationships.

5. **Curriculum adjustment** -- the direction of change that students in the experimental and the control groups made in their majors toward or away from their inventoried vocational interests.

6. **Experimental group** -- the group of seventy-five students from the sample to whom the Student Developmental Task Inventory was administered and interpreted.

7. **Control group** -- the group of seventy-five students from the sample to whom the Student Developmental Task Inventory was administered. An opportunity was provided for individuals in the control group to have the inventory interpreted after completion of the study.
CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This chapter includes a review of literature related to various aspects of the developmental task concept, functioning of the college-level student in general and the freshman student in particular. The literature is divided into five sections: (1) Developmental Tasks; (2) Developmental Status of the College Student; (3) Interpersonal Relationship Skills; (4) Academic Achievement; and (5) Choice of a Major/Career.

Developmental Tasks

Human growth and development involves learning, and learning is a lifelong process. Havighurst states, "Living is learning, and growing is learning... To understand human development, one must understand learning. The human individual learns his way through life."\(^1\) Development as described by Blocher, "is seen to combine growth, maturation, and learning. It is seen to be influenced by environmental factors, within those context developmental processes are

\(^1\)Havighurst, Human Development and Education, p. 1.
are considered interrelated."\(^2\)

According to Havighurst, the developmental tasks of life--tasks that each individual must learn--are those things that constitute healthy and satisfactory growth in our society. "They are the things a person must learn if he is to be judged and to judge himself to be a reasonably happy and successful person.... Thus developmental tasks may arise from physical maturation, from the pressure of cultural processes upon the individual, from the desires, aspirations, and values of the emerging personality, and they arise in most cases from combinations of these factors acting together."\(^3\) The concept of developmental tasks is useful to educators because it helps in discovering and stating the purposes of education in the schools and it helps place the timing of educational efforts at the "teachable moment"--when the task should be learned.\(^4\)

In a review of the research on the developmental task concept, Havighurst found that it is concerned with three major problems: (1) how developmental tasks are discovered and defined, (2) how they vary with age and with cultural background, and (3) how performance or developmental tasks

\(^2\)Blocher, Developmental Counseling, p. 46.

\(^3\)Havighurst, pp. 2-4.

\(^4\)Ibid., p. 5.
can be measured.¹ In addressing the issue, he states:

The developmental task concept originated in the 1930's, was elaborated in the 1940's, and has been put to use in education during the 1950's. During recent years it has been the subject of further research.

The concept grew out of the research on child and adolescent development which flourished in the 1930's and resulted in a science of human development cutting across disciplines in the biological and the social sciences. Most recently the developmental task concept has been developed on the basis of psychological and sociological research on attitudes and social roles. Furthermore, recent research on adulthood and old age has elaborated the developmental-task concept and applied it to the entire life cycle.²

A developmental task as defined by Havighurst is "a task which arises at or about a certain period in the life of an individual, successful achievement of which leads to happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by society and difficulty with later tasks."³

In summary, the developmental task concept has evolved into a useful concept for studying human development throughout the life cycle. Research in this area is being expanded into all areas.


²Ibid., p. 215.

³Havighurst, Human Development and Education, p. 2.
Developmental Status of the College Student

The term student development was derived from human development in applying this concept to individuals of the traditional college age group in the postsecondary educational setting. In recent years, research concerning the development of the college student has increased significantly. The process of human growth and development has been described as proceeding through distinctive periods or stages by developmental theorists such as Havighurst, Piaget, Maslow, Erikson and Kohlberg, to name a few. These stages have been described in various ways. For instance, the theories such as those of Piaget and Kohlberg describe invariant structural properties in the person while those of Erikson, Havighurst and Maslow indicate a sequence or hierarchy of developmental tasks which the individual must go through if the person is to continue to grow.

Erikson's eight stages of man was one of the earliest stage sequences. It describes development as requiring the individual to face a series of psychosocial "crises" as a person moves from one stage to another. The term "crisis"

is used to describe a necessary turning point, a crucial moment when development must move one way or another, marshalling resources of growth, recovery and further differentiation. The individual at the adolescent stage of development is described as experiencing an identity crisis and the young adult an intimacy crisis.¹

The seven psychosocial tasks which Erikson sees as a part of the life cycle are broader than a developmental task. The central task of adolescence, achieving identity, contains the following developmental tasks: learning a masculine/feminine role, accepting one's body, achieving emotional independence from parents and other adults, selecting and preparing for an occupation, and developing a scale of values and an ethical system by which to live.² Havighurst, who has made a substantial contribution to developmental theory through his concept of developmental tasks, identifies ten tasks for the stage of adolescence. These include achieving new and mature relations with peers, emotional independence of parents and other adults, socially responsible behavior; accepting one's physique and using the body effectively; selecting and preparing for an occupation; developing intellectual skills and concepts necessary for civic competence; preparing for marriage and family life;

¹Erikson, p. 16.

and acquiring a set of values and an ethical system as a
guide for behavior. For the stage of early adulthood,
between 18 and 30, the tasks to be accomplished are select-
ing a mate, learning to live with a marriage partner,
starting a family, rearing children, managing a home, getting
started in an occupation, taking on civic responsibility and
finding a congenial social group.¹

The college student is represented as being in Blocher's
Exploration Stage. This stage begins in mid-adolescence and
moves the individual through later adolescence (ages 15 to
19) and early adulthood (ages 20 to 30). Developmental
tasks of later adolescence include establishing identity as
a worker (career development); achieving emotional autonomy
and learning to produce in work situations. The young adult
must develop intimacy (the capacity to commit oneself to
concrete affiliations and partnerships and the ethical
strength to abide by such commitments); commitment (to
close interpersonal relationships, ideals and causes and to
organizations and enterprises); and generativity (productiv-
ity and creativity, a concern to nurture and guide the next
generation).²

Using a somewhat different approach, Heath seeks to
provide a model of the maturing person for the student to

¹Havighurst, *Human Development and Education*, pp. 162-
167.

grow up in college. He states that "to become a more mature person is to grow intellectually, to form guiding values, to become knowledgeable about oneself, and to develop social, interpersonal skills."\(^1\) The developmental process will involve becoming allocentric, becoming integrated, becoming more stable, and becoming more autonomous.\(^2\)

Perry has done work in the area of cognitive and ethical development. From his interviews with college students he was able to identify nine stages (positions) of development. They ranged from Position 1 where the student sees the world in opposite poles of "we-right-good" and "other-wrong-bad", to Position 9 where the student realizes the necessity of commitment.\(^3\)

Chickering postulates seven major "vectors" of development during adolescence and early adulthood. These include achieving competence, managing emotions, becoming autonomous, freeing interpersonal relationships, clarifying purposes and developing integrity.\(^4\)

\(^2\) Ibid., pp. 8-19.
Coons discusses the resolution of adolescence in college in terms of five developmental tasks to be resolved by the college student during late adolescence and early adulthood. These are: (a) the shift in the nature of one's relationship with one's parents; (b) the resolution of a personal-sexual identity; (c) the creation of a value system; (d) the development of the capacity for true human intimacy; and (e) the choice of a life's work.¹

In 1974 Prince, Miller and Winston introduced the Student Developmental Task Inventory (SDTI) as a tool for encouraging the growth and development of individual students. According to Winston, et al., "it combined the content of Chickering's vectors with Havighurst's conceptualization of developmental tasks to form a practical assessment instrument for use with individual students who wished to assess their present developmental status and then to assume responsibility for their own intentional growth and development."² The forerunner to the SDTI was a Developmental Task Scale for College Students created by Prince. A revised, second edition, of the Student Developmental Task Inventory (SDTI-2) was subsequently created by


Zaccaria indicates that there are three uniquely related formulations of the concept of developmental tasks—developmental tasks, vocational developmental tasks and psychosocial crises.² Theorists such as Tiedeman and O'Hara and Super have studied the vocational application of the developmental task concept. In their Career Pattern Study, Super and his associates used Beuhler's vocational life stages as a framework for vocational development. In the exploration stage, age 15-24, "self-examination, role tryouts, and occupational exploration take place in school, leisure activities, and part-time work."³ The vocational

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¹Ibid., pp. 430-431.


developmental tasks applicable to this high school adolescent-young adult stage are: further development of abilities and talents, choice of high school or work, high school curriculum, college or work, college curriculum, suitable job, development of independence and skills on the job.\textsuperscript{1}

In summary, the following, as was indicated by Miller and Prince, can be said of the research on the developmental status of college students:

It seems clear that there is rather strong agreement among human development theorists and researchers on the nature of the developmental needs and derivative tasks which become manifest during the college years. If educational leaders take advantage of this knowledge by giving students opportunities to meet their developmental needs, then students' higher education experiences will be more meaningful and useful to them as productive citizens.\textsuperscript{2}

From the research on student development, it can be observed that college freshmen of the traditional age of 17 or 18 are in the late adolescent-early adulthood stage of development. As such, they will be mainly involved in exploring in personal relationships, educational achievement, and career choice in order to establish personal identity. Conflicts of breaking away from parents (gaining autonomy), clarifying values, learning to make

\textsuperscript{1}Ibid., p. 44.

decisions and accepting responsibility will be inherent in
the developmental process. In large part their central
developmental task related to career development/identity.

Establishing satisfactory interpersonal relationships
is vital to the freshman college student. Beginning with
relationships with peers to student-teacher relationships,
accomplishment of this task has a profound influence upon
the student's college experience.

**Interpersonal Relationship Skills**

Relationships begin with the individual--knowing who he
or she is and communicating that self to others. Individuals
develop various kinds of relationships for a number of
different purposes. A positive self concept and skill in
relating to others can produce satisfying relationships.
The review of the literature addresses the nature of
relationships and factors that affect the development of
interpersonal relationships.

Heath, in describing the model of the maturing person
states the following:

To become a more mature person is to grow
intellectually, to form guiding values, to become
knowledgeable about oneself, and to develop social,
interpersonal skills... Most of life's problems
require interpersonal skills for their solution.
Furthermore, the development of the different
parts of a person is inextricably woven into one's
maturing relationships with others... Impairment
in the capacity to respond to another results in a
distorted self-concept, retarded intellectual skills,
and impulse-ridden values.\(^1\)

Heath further relates awareness to maturing and interpersonal relationships. He notes that maturing brings greater awareness of oneself; that more mature persons have more accurate insights about themselves; and that those who have more accurate self-images have also been found to be more interested in other persons and to have warmer and more enduring relationships. "Informal observations," says Heath, "reveal that more mature college students are more social—perhaps less lonely; they more frequently live with other people, retreat less frequently into single dormitory rooms; they have many more devoted close friendships that persist than do immature students."\(^2\)

Foote and Cottrell have contributed to the concept of interpersonal relationships by attempting to define interpersonal competence or an "acquired ability for effective interaction." They see interpersonal competence as consisting of six components which are manifested in observable behavior. These are: (1) health, (2) intelligence, (3) empathy, (4) autonomy, (5) judgment, and (6) creativity.\(^3\)

\(^1\)Heath, Growing Up in College: Liberal Education and Maturity, p. 4.

\(^2\)Ibid., p. 10.

Much of the literature notes the differences between males and females in the development of interpersonal relationships. In discussing the differences in the effects of the peer group upon boys as compared to girls, Harrocks states:

\[\ldots\text{Here we see a difference in the developmental tasks facing boys and girls. The female adolescent needs to develop interpersonal skills and find love. In contrast, the male adolescent needs to accept the cultural stereotype of achievement if he is to attain achievement and independence, thus meeting cultural expectations.}^{1}\]

Josselson, et al. studied the phenomenological and psychodynamic differences between eleventh grade girls and boys who scored the high and low extremes of the Psychosocial Maturity Inventory. Ability to tolerate anxiety and the developmental use of interpersonal relationships were also discussed as central to identity formation among the girls. It is noted that the single most predominant and recurrent difference found between girls and boys at this age is that girls have a far greater interpersonal focus, while the boys' identity rests more directly on their development of autonomy.

The results indicated that the seriousness and self-awareness of the high-maturity girls as well as their high immunity to group pressure accounted for their high Individual Adequacy scores; while the low-maturity girls who

responded to the givens of a situation, retreated into conformity, and had little interest in their own individuality, scored low in Individual Adequacy. With respect to Social Adequacy, the girls who scored high also appeared on interview to have greater empathy, greater ability to tolerate differentness in others, and greater appreciation for the intricacies of the larger society. The low-maturity girls, with their fundamentally egocentric orientation, seemed relatively unable to consider issues that did not immediately impinge on them.¹

In a study which examined sex differences in the processes of identity and intimacy development among college youth, 50 males and 50 females were given measures of identity status, intimacy status, and self-esteem. The study showed that males and females follow different identity development pathways. The late adolescent male was found to test out who he is by issues of competence and knowledge. His focus was on intrapersonal aspects of identity. The focus for the female was not so clear. Her identity issues seemed to be based on relating, on the interpersonal aspects. The pursuit of various identity development pathways affected self-esteem differently for

the two sexes. More females than males were found to be intimate and the achievement of intimacy seemed more closely related to identity in males than in females. The findings were interpreted in the context of Ericksonian theory, which seemed more adequate in explaining male than female development.¹

In a study of transitions in relationship style from middle adolescence (high school) to late adolescence (college), 317 students described their relationship with the person who was closest to them either same or other sex. The participants were in an age range of 15-20 years. Almost two-thirds of the high school participants (60%) were women, as were more than two-thirds (69%) of the college students. Based on the literature reviewed it was hypothesized that more females than males would be characterized by the relationship type that includes greater intimate, empathic, disclosing, nonegocentric, and friendly relations; that more college students than high school students would be characterized in the relationship style that includes greater intimate, empathic, disclosing, nonegocentric, and friendly relations; that relationships involving two females would be found more frequently than relationships of two males in the relationship style type that includes greater intimate,

empathic, disclosing, nonegocentric, and friendly relations; and that cross-sex relations would fall more frequently in a style characterized by greater intimate, empathic, and disclosing relations.

In the results, four relationship styles were characteristic: integrated (high friendly and high intimate), intimate (high intimate and low friendly), friendly (high friendly and low intimate), and uninvolved (low intimate and low friendly). Women's more intimate styles of relating, as compared to men's more uninvolved styles, suggested that women developed earlier competence at the developmental task of intimate relating than did men. Viewed as particularly important were the college women's close friendships with those of the same gender, and experience uncharacteristic of adolescent men in high school and college. The results suggested the importance of the transition of adulthood to the development of intimate or integrated relating with peers, particularly among women. The results were discussed in terms of Erikson's stages of development and Sullivan's concept of the chum.¹

To facilitate the early detection of psychological disorder in adolescence, a 100-item Likert scale was devised for the purpose of screening out the troubled adolescent

from within a group setting. Based on the outcome of a Q-sort study the scale was designed to examine age-related differences in salience of need for interpersonal relationships with parents and friends. The dimension of parent/friend interpersonal relationships was selected as the key element on the premise that psychoanalytic, psychosocial and cognitive theoreticians alike emphasize the critical influence of these relationships on adolescent development and psychological functioning. The instrument was administered to a non-random sample of 24 'normal' subjects, aged 11 to 19 and two groups of 13 each 'troubled' subjects, aged 13 to 17.6. The results of the study suggested that the scale could differentiate between the groups of adolescents previously identified as normal or troubled. While it could not identify age-related differences in the normal group, the instrument did identify a greater salience of need for interpersonal relationships in females than in males.¹

Mulcahy explored relationships among sex, target, and aspects of disclosure by adolescents. An adaptation of the Jourard and Lasakow Self-Disclosure Questionnaire (SDQ) was administered to 97 secondary school volunteers (36 males and 61 females) with same-sex friend and opposite-sex friend

as specified targets. The students ranged in age from 15 to 20 and were drawn from grades 10 through 13. SDQ scores were obtained for a stratified random sample of 30 subjects with volunteers matched for school, grade, age, and sex. The findings suggested that males and females do not differ in amount of overall self-disclosure. It was also found that adolescents disclose differentially to their peers, i.e., they disclose more to same-sex friends than to opposite-sex friends. This provided support for the contention that same-sex friendships are an integral aspect of adolescent development. Female sex disclosure was greater than male same-sex disclosure. A high disclosure cluster for females was Tastes and Interests, Work (Studies), and Attitudes and Opinions. Sex differences in aspects of disclosure were discussed in terms of sex-role variations in establishment of ego identity.¹

Joseph Katz studied the effects of coeducational living upon male-female relationships. Five institutions across the country were studied over a two-year period, including Stanford University. Much of what was found at Stanford was duplicated in the other four institutions. Coeducational living at Stanford was found to have had a double impact.

According to Katz:¹

It made it possible for the sexes to be better acquainted with each other, and it enlivened intellectual, social service, and creative activities. These developments were hand-in-hand with a growing assertion of their autonomy by young people and the growing liberation of women.

Some of the highlights reported were greatly expanded sexual activity on the part of the women and the disappearance of the double standard. One consequence of the freer access of men and women to each other was a lessening of the importance of the date. It was found that the date was being replaced both by more intimate associations and more casual ways of getting together. There were also changes in sex role. The data also indicated that a weakening of the supports provided by tradition and social norms led to a rise in anxiety. Many students experienced pain, particularly in the early parts of their college years, when they were confronted with intensities of relationships with which they had not yet learned to cope. However, it was felt that at the same time there was the potential for them and for others to face the depths and problems of relationships more fully than prior generations and to develop capacities for relationship and understanding of the other sex before more or less irreversible choices were made.

The author saw the opportunity for a considerably expanded role for the student personnel profession to assist faculty to understand the need for additional ways of education to relate to the psychological and social life tasks of students. It was suggested that student personnel can also help students in understanding the noncognitive dimensions of life, and train them to be teachers and counselors of each other.1

In discussing "The Psychology of Women: Implications for Interpersonal Relationships," Chalmers indicates that the changing images of women bring with them new demands on both male and female—the need to find new ways to live and the need to find new patterns of relating. She states that the way society regards women and the way we have socialized them lead to problems in self-esteem, achievement orientation, anxiety and depression. Chalmers asserts the following:

... those in contact with college women must walk between Scylla and Charybdis, continually helping women to envision their possibilities for self-development while maintaining respect for their historic skills. The current upheaval in women's roles is anxiety provoking to all of us. However, we have a glimmer of a better way ahead for our young men and women. Men will be freed from the shaky sense of identity that comes when one defines himself narrowly as a breadwinner in a competitive, mechanized society. Likewise, women will not suffer the anxiety that comes from defining

1Ibid., pp. 113-116.
themselves exclusively in terms of interpersonal relationships.¹

The literature reviewed revealed a high ability and need for interpersonal relationships by women. However, as the needs and roles of women change, they have begun to define themselves in a broader sense as they find a new identity and a better way of relating to others in various situations.

One of the primary concerns of students at the freshman level is academic achievement. Success or failure in this area may determine the entire future of the student.

**Academic Achievement**

The review of the literature which follows pertains to factors affecting academic achievement and academic performance.

Schroeder and Sledge studied factors related to collegiate academic success. Their review of the literature revealed the following:

Intellectual factors were found to be more predictive of collegiate achievement than non-intellectual factors although the importance of the latter was not disputed. Intellectual factors found in decreasing order of importance were high school achievement (grade point average slightly superior to rank in class), subject matter test

scores, and measures of mental ability. Specific high school course grades in their relationship with college achievement were studied by several authors, many of whom indicated that such grades were of most value in differential rather than global prediction; that is, grades in specific high school courses seemed to correlate more highly with similar college course grades than overall collegiate grades. The margin of differences between the correlations reported for all intellective factors were generally quite small (I.10)...

The purpose of their investigation was to determine relationships between selected background factors and collegiate academic success of 181 male high school graduates of 1957 from five Wisconsin counties who attended college for a minimum of one year. Further refinement of the purpose was to determine the relative contribution of each factor when used, with all other ordered factors, to predict collegiate success. Factors studied in their relationship to collegiate academic success were of three major types: high school background and mental ability, motivational factors, and family structure and/or characteristics. The findings were reported under these headings and are summarized as follows:

1. All high school academic factors (Henmon Nelson Centile Rank and grade-point averages in language, pure science, math, social science, and in all courses) correlated significantly and positively with college language, pure science, math, social science and overall grade-point averages, but not

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with college technical and agriculture grade points. College social science grade-point was the only criterion which correlated most highly with its high school complement. Number of high school extracurricular activities was found to correlate significantly with only college pure science, social science and overall college grade points.

2. Motivational factors which correlated with the highest number of college achievement variables (overall grade-point average and grade-point averages of six subject matter areas for a maximum of seven) were: ten year occupational choice (5), time of occupational or educational decision (5), and congruency between course area interests and perceptions of beneficiality (4). Conversely, achievement variables which correlated significantly and positively with motivational factors (maximum of fourteen) were: college-grade point average (7), college pure science grade-point average (6), college language grade-point average (5), college math grade-point average (5), college technical grade-point average (4), and college social science grade-point average (2).

3. The only significant correlations within the category of family structure and/or characteristics were those between economic status of home county and math, social science and overall college grade-points respectively. No significant correlations were found with reference to family size, number of parents living, age, ratio, sibling sex ratio, educational level of father, educational level of mother and occupation of father.

4. The 26 background factors studied were most predictive of overall grade point and least predictive of college mathematics grade point. High school grade-point average was the number one predictor language, pure science and overall grade-points, contributing from five to ten times prediction than the number two predictors. Further study generally revealed that the 24 non-academic factors as a group contributed little more to prediction (after corrections were made for degrees of freedom) than was contributed by the two academic factors alone.¹

There are also non-intellectual factors which may affect academic success. Some of these have been identified as self-discipline, interpersonal relationships, self-concept, motivation, aspirations, etc. Iglinsky and Wiant examined interpersonal relationships between students and parents and the students' self-concept to determine their effect on academic success. One hundred fifty students who enrolled as freshman and completed two successive semesters of college at Stephen F. Austin State College were used in the study. They were divided into three groups of 50 each, 25 males and 25 females according to the following academic status: Group I--students not placed on scholastic probation during their freshman year; Group II--students placed on scholastic probation at the end of their first semester and removed from probation at the conclusion of their second semester; and Group III--students placed on scholastic probation after their first semester and suspended after their second semester.

The results of their study were as follows: (1) Self-concept as measured by the Tennessee Self-Concept Scale was not related to academic success. (2) The student's general orientation was not related to academic success of groups. (3) Female students tend to be more altruistic and less manipulative than male students. (4) General Orientation scores of the students were related to mother's but not to
father's scores.\footnote{Clyde Lee Iglinsky and Harry V. Wiant, Jr., "Non-Intellectual Factors in Academic Success," \textit{Improving College and University Teaching} 19 (Autumn 1971): 297-298.}

In a study of 1,025 male college freshman at the University of Texas, El Paso, student ability to predict academic success was examined. The study was conducted to determine what effect such demographic factors as parents' educational backgrounds, academic major in college, ethnic background, and average high school grade had on the freshman students' prediction of their first semester GPA. A questionnaire was designed to yield the necessary data. In the results, choice of college major, socioeconomic level, and average high school grade were found to have a significant effect on prediction of GPA by male freshman students. The factors of ethnic background and average high school grade were significant in the prediction of GPA by the students. The final interaction which had a significant effect on predicted GPA was that of the four main factors of choice of college major, ethnic background, socioeconomic level, and average high school grade of male freshman students. Students from upper socioeconomic levels had significantly higher predicted GPA's than did students from lower socioeconomic levels. Major area of college study and average high school grade also had a significant effect on GPA predictions. Of the factors considered, socioeconomic
status, past experiences and major area of study were significant factors in students' predictions of GPA.¹

Research reveals that causes of poor academic performance among college students are diverse and complex. Some of the reasons to which academic failure has been attributed are: lack of intellectual potential, an inadequate understanding of the amount of work necessary for success, too much involvement in outside activities, psychological problems, a lack of personal discipline, difficulties with reading and writing, selection of an inappropriate major, and incompatibility with the chosen college.² Freshman who received less than a "C" average during their first semester at the Miami University main campus were asked to indicate on a written questionnaire how much 68 factors contributed to their poor academic performance. Usable returns were obtained from 301 students (166 men and 135 women) or 80%. The freshman in this study placed the greatest responsibility for their low grades on their own lack of motivation, improper study habits, and inattention to school work. The author notes that there were significant differences between the responses of the men and the women on almost half the items.


Although men and women were similar on factors related to study habits and motivation, women were more likely to feel that matters pertaining to the instructional process were responsible for causing their scholastic difficulties. For example, a larger percentage of women than men considered the following to be a major moderate reason for their performance: unstimulating instructors, classes too large for personal attention, failure of examinations to fairly evaluate knowledge, poor teaching by instructors, too few examinations to demonstrate knowledge, and failure to discuss academic difficulties with course instructors. More women also attributed their poor performance to matters related to curriculum: an unwise choice of courses, a lack of interest in course material, and the need to take unwanted required courses. Women also seemed to be more affected by factors of academic stamina and self-confidence; these students placed part of the blame for their poor academic performance on their lack of faith in their ability to succeed academically and the stiff competition from peers on campus. Overall, women tended to stress the importance of most of the factors in this study more heavily than did men. For each of the items in which there was a statistically significant difference between the mean scores of men and women, women rated the factor as more important.1

In a study of superior students who had been associated with The Research and Guidance Laboratory for Superior Students the purpose of the study was to explore for possible relationships between superior students' vocational goals, their educational goals, their reasons for selecting particular colleges to attend, and their success of lack of success in their first semester of college. The results

indicated the following:

1. Differences between overall scholastic performances of the two groups appeared to become more marked as they progressed through high school and into college.

2. There were significant relationships between the factors students considered when choosing colleges and their first-semester grade point averages.

3. There was a significant relationship between college success and the selection of a major field of study during the freshman year or before.

4. There was a relationship between scholastic success and degree of specificity of vocational goals.

5. Degree of specificity of ten-year goals was related to success in college.

6. There was a trend indicating that students who had vocational goals tended to take academic factors into account more often when choosing a college than did students who were undecided about career goals.

For this study it was said that success or lack of success in school is a function of realism of educational goals.¹

A study by Reuterfors, et. al. of groups of 392 male and 424 female entering college freshman tested Holland's three predicted relationships between the academic performance of college freshmen and congruence, consistency and differentiation which were derived from his theory of vocational development regarding academic achievement. The results indicated that freshmen with congruent college major choices or with definite majors but indefinite Holland

orientations enjoyed greater academic success than students who specified incongruent choices or no definite major choice. Students with personality codes of high or low consistency outperformed students with moderately consistent codes. For females, differentiation was not significant. In all sex comparisons female trends paralleled male trends and females generally outperformed males.¹

Using a nationwide longitudinal probability sample of black high school graduates attending traditionally white (TWI's) and traditionally black (TBI's) institutions, and for two-year and four-year colleges and universities, Braddock and Dawkins examined the relative importance of selected intellective and nonintellective correlates of academic success in higher education. Specifically, the influence of sex, social class background, high school grades, aptitude/achievement test scores, high school racial composition, high school curriculum, and study habits as determinants of college grade performance was examined. The findings in general suggested that: (1) both intellective and nonintellective factors may influence academic success in college; (2) the relative importance of specific predictors varies across type of setting; and (3) predicting academic

achievement for blacks is more problematic in traditionally white than traditionally black colleges and universities. It was observed that among the intellective criteria considered, high school grades appeared to be more important than aptitude test scores. Among the nonintellective factors examined, study habits and social class background were the only factors which exhibited statistically significant effects on black student grade performance.¹

The academic motivation of disadvantaged students in a special community college program was compared to that of regular matriculants in a study by Dispanzieri, et. al. Two groups of male and female subjects participated in the study. Analyses were also made of measures of ability and several other personality characteristics as predictors of academic success for the special program students. While the groups did not differ in degree of motivation somewhat different patterns were found to emerge. The regular matriculants were more concerned with social evaluation and special students were more concerned with self-worth. Predictors most similar to activities required for successful college performance were those most highly correlated with the criteria. High school average, Otis IQ, study habits and attitudes, and reality of aspiration level were found to be

the best predictors. Among the females, the special program students scored higher than regular matriculants on three factors and regular matriculants scored higher on two factors. The authors conjectured that the special-program female appeared to be motivated predominantly by fear of failure. In addition, fear of negative social evaluation appeared to motivate the female regular matriculants to strive for success.¹

Zimmerman, Goldston and Gadzella studied the prediction of academic performance for college students by sex and race. The subjects were 113 white females, 62 white males, 25 black females and 12 black males enrolled in introductory and educational psychology classes who responded to several instruments. They were (a) Survey of Study Habits and Attitudes, (b) Cooperative Reading Test-Reading Comprehension, (c) California Short-Form Test of Mental Maturity, (d) Rotter 1-E Scale, and (e) Levenson Internal, Powerful Others and Chance Scales. The results revealed that black males and females academic performance could not be predicted by standardized tests but was predicted by the study habits inventory. The over-all accuracy of prediction for black females was 68%. Only one variable of the 32 was a predictor for this group—the Work Methods score of the

Survey of Study Habits.\textsuperscript{1}

In an investigation of the relationship of personality and cognitive factors with academic achievement (GPA) by Green and Farquhan; 233 Negro and 515 Caucasian eleventh grade high school students of both sexes were tested as to verbal aptitude, academic achievement and academic motivation. Except for Negro males, both samples obtained significant correlations between verbal aptitude and achievement, but academic-motivation tests (the M scales) correlated significantly with achievement for all four groups. Among the subtests of the M scales, the self-concept scale (WRL) was the best predictor of achievement for Negro males (.36) and females (.64) and white females (.34), indicating the strong relationship between the students' self-perception and school achievement. Green and Farquhan noted that the value of the M scales in estimating achievement for the sample of Negro students emphasized the relationship between nonintellectual factors and school performances.\textsuperscript{2}

In another study by Wilder, Paradise and Hoffer involving nonintellectual factors, the effects of discrimination on academic performance were tested by comparing


black and white college students matched for sex scholastic aptitudes and secondary school achievement. Four variables comprising the personality constructs of frustration tolerance and independence were analyzed. In this study, blacks scored higher on the independence and lower on frustration tolerance than their matched peers.¹

Jones, Harris and Hauck did a study of the differences in perceived sources of academic difficulties between black students in predominantly black colleges and those in predominantly white colleges. The subjects were 98 males and 97 females in four predominantly black universities and 51 males and 43 females in five predominantly white liberal arts colleges. Some of the results were particularly revealing for black females. For instance, (1) Although female students generally gave themselves highest ratings in their study habits than did males (p .05), male students majoring in the humanities, natural sciences and behavioral sciences rated their study habits higher than did females with the same major (p .05). (2) Communication with instructors was rated significantly poorer by students in predominantly white colleges (p .05), the poorest rating being given by female students in these schools. In their discussion Jones, et. al. noted that female students were

inclined to view social and communication problems as contributing most importantly to their academic difficulties; and that there was a tendency for students to attribute their academic difficulties to non-academic factors, particularly the female students.¹

In an initial effort to identify those resources which support academic success among Black adolescents, Ozzie Edwards developed a description (profile) of critical characteristics of a cohort of academically successful Black youngsters. The subjects for his study were 6 males and 15 female first-term high school seniors who had cumulated an academic grade point average of 3.0 or better (on a scale of 4.0) over their senior high school years. The average age of the 21 students was sixteen years five months. Descriptive characteristics included in the profile were the following: demographic characteristics, school experiences, academic performance, motivating influences, beliefs and attitudes, live style and occupational aspirations.

The findings were broad and varied and no firm conclusions were reached as this was not the objective of the descriptive inquiry. However, among the findings, which Edwards noted were the following: (1) It was suggested

that residential stability has a positive effect upon student performance. (2) The prevalent pattern for GPA's was one which undulated over the five terms with the low point coming during the middle years. (3) Without exception, students included one or both parents among persons who influenced them to strive for academic success. Efforts were frequently reinforced by older siblings. Teachers and counselors were also sources of motivation. (4) When asked to identify experiences critical to their academic success, students were found to most frequently point to a spelling or math contest during elementary school. It was felt that this positive experience apparently triggered an awareness of academic abilities which in turn had a cyclic relationship with academic interest and performance. Other similar catalytic experiences were noted, with no single experience being common to all. (5) Self ratings of looks, dress, grades, personality and athletic ability along with their importance to the students revealed an apparent high level of self-esteem among the students.¹

The review of the literature indicates that there is a variety of factors which can affect academic performance. Intellective factors as well as non-intellective factors have been found to significantly influence academic

Among the non-intellective factors, study habits, motivation and choice of college major were frequently found to affect academic performance. For Blacks, study habits were regularly among the influential non-intellective factors cited. Closely related to academic performance is the choice of a major or career. A student's academic performance will influence her educational choice and goals.

**Choice of a Major/Career**

The choice of a major is one of the primary tasks of the college student. Research in this area has focused on a variety of aspects, such as, the process of choosing a major, satisfaction with the major, change of major, characteristics of majors, and the undecided, undeclared or undetermined major. The literature that follows will focus on these areas.

Weigel and Smith did a study to determine whether pre-orientation mailings to students might facilitate a student's early academic career and/or his choice of an appropriate initial major. It was felt that getting started in an appropriate major eventually would lead to fewer changes of major, and perhaps higher GPA's for the experimental group. However, no systematic group differences were noted in the number of major changes, time of major
In discussing the subject of college majors, Emily Chervenik raises the question as to whether a student has made a binding career commitment once he elects a college major. She notes that the choice of a college major should not be looked upon as a specific career commitment. "Rather, it should be appreciated as the route by which the student can best achieve intellectual satisfaction and growth, and develop the tools of thinking, expression, discrimination, and problem-solving techniques needed in every vocation."  

Berger notes the unreasonable pressure placed upon students to know what they want to do vocationally, especially when it is applied to high school seniors and college freshmen. He explains that the pressure is particularly unreasonable with this group because most of them have not yet learned enough about themselves, about occupations or about their limitations in college-level work to be able to make a first, satisfying choice. He states the following:

Students should be encouraged to consider any early decision as tentative, a choice to be tested, confirmed, or disconfirmed. They should be relieved

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of pressure to 'know' what they want to do, and helped to see their task as one of confirming or discovering what they want to do by way of a process of exploration, experimentation, and personal development that may go on through their lifetime.¹

Studies with college seniors to determine their satisfaction with their majors have also been used as a means of determining how students can be assisted with this task. French used this approach in a study in which he looked at aptitude and interest score patterns related to satisfaction with the college major field. Students graduating from a men's, a women's, and a coeducational college were divided into those satisfied with their major field and those dissatisfied with their major field. The general finding was that about one-fourth of all the students were dissatisfied with their choice of a major field. There was a great diversity of reasons expressed for wishing they had chosen a different major field. However, some major tendencies did appear. A large proportion of the students at the private women's college mentioned changing interest, course content, or quality of teaching as reasons for desiring a change. Each field had a pattern of average aptitude test scores that might be reasonably expected for it, but satisfaction was found not to be predictable from these patterns. Students' preferences for fields different

from their own suggested a lack of knowledge either about themselves or about the qualifications necessary for the field preferred. Average interest scale patterns made in freshman year were found to have some relationship to satisfaction in senior year.¹

Rochester and McBride did an investigation of seniors' satisfaction with majors at Southern Illinois University, Edwardsville, a commuter four-year campus. Of the total of 483 students included in the study, 40.58 per cent were males, 57.35 per cent were females and less than two per cent did not identify their sex. The results of this study showed that only a small percentage of college seniors were dissatisfied with their major. However, more than half of the students changed majors more than once during the first three years of college. Also 14.91 per cent indicated that they would change their major if this did not affect their date of graduation.²

Walsh and Russell looked at choice of major and personal adjustment. Their study focused on the differences in reported personal adjustment problems between freshman who made a congruent college major choice and those who


made an incongruent choice. Personal adjustment was defined operationally using the Vocational Preference Inventory. In this study, students who made a congruent college major choice were found to have reported fewer personal adjustment problems than subjects who made an incongruent college major choice. The results were significant for males and approached significance for females.¹

Titley and Titley noted that changing of the major is a highly prevalent behavior among college students. They further noted that "the high incidence of college undergraduates who change majors is, however, congruent with and predictable from the notions of several vocational theorists (Ginzberg, 1972; Ivey & Morill, 1968; Super, 1957; Tiedeman, 1967; Tiedeman & O'Hara, 1963) who either state directly or imply that career choice, of which major choice is perhaps a reflection, is an ongoing developmental process."² The results of their study of 2,451 college-bound students attending a comprehensive orientation program for entering freshman, indicated that some form of undecidenedness, tentativeness, or uncertainty about choice of major existed in at least three out of four college freshmen.


Krupa and Vener reported 6,395 changes of majors among the freshman/sophomore population of 14,000 undergraduates at Michigan State University. They further estimated that of 75 to 80% of entering freshmen at Michigan State declaring a specific major, three-fourths would change majors before graduating.¹

In a study conducted at Auburn (Alabama) University, Cook sought to find some of the reasons students had for changing their majors, some of the trends established in changing and some of the effects these transfers had on the students. Of the 1,955 students who entered Auburn in the summer and fall quarters of 1959, he found that 12% had changed majors at least once during the period from summer, 1957 to fall, 1962. Only 46% of the total group was still enrolled at Auburn during the fall quarter, 1962. A wide variety of reasons for transfer was given by students. However, primary categories of reasons included the influence of parents, relatives and friends, vocational interests, and personal desires and social interest. It was found that regardless of the change made or the reason for transfer to another school, a student usually realized some effects. The results suggested that grades were not significantly affected by change of majors. However attitudes of the

students concerning their future at the university and after graduation and possibilities of success were found to be more positive than negative as a result of change of majors.¹

Jonathan R. Warren did a longitudinal study of 525 highly capable male high school graduates based upon Super's theory of occupational choice as the implementation of a self concept. The study was designed to test the hypothesis that changes in college field of specialization, or college major, are likely to occur when a discrepancy exists between self concept and expected occupational role. However, significant differences found in the testing of a second hypothesis that two or more changes might be expected in the reduction of extreme discrepancies, encouraged the view that the presence of a significant relationship between self-role discrepancy and change in field may have been masked by the effects of other variables. Accordingly, ten of the Omnibus Personality Inventory scales (OPI), SAT scores and freshman year Grade Point Averages (GPA) were examined for a relationship with change in field. Only two of the 12 variables, GPA and Thinking Inversion (TI) scores, differentiated those who changed fields from those who did not change. It was found that subjects who changed their

fields had lower GPA's and higher TI scores than did those who stayed in their initially chosen fields. ¹

Brown examined two curricular groups of male science and humanities students to determine whether there were identifiable characteristics that distinguished those who changed their academic goals during their first year of college from those who persisted. Criteria included measures of personality and attitude characteristics, degree of participation in a variety of intellectual activities, friendship patterns, and satisfaction with courses and college. There were no significant differences among the mean scores of the groups on measures of scholastic aptitude (SAT) or in their first-year college grade point averages.

The results of this study revealed that it was possible to make some generalizations about the characteristics of curricular changers andpersisters within the science and humanities curriculums, but that it is more difficult to generalize about changers and persisters across academic fields. Except for an increase in impulsiveness, persistence or change itself did not appear to be associated with particular attitudinal patterns or personality traits. The author noted that curriculum change did not appear to be an isolated event involving finding the proper vocational

niche; but that for these students the process seemed to be one that was developmental as well as one involving differentiation between self and peer models. He suggests that "as further research offers refinements of our understanding of the student who changes his curricular goal in other fields as well as those considered in this study, attempts could be made to identify potential changers and assess the impact of various efforts at intervention."¹

In examining a theory of vocational choice, Holland and Nichols did a longitudinal study of change in major field of study. Changes in major field plans for a one-year period (high school senior to end of freshman year) were studied by assessing a sample of National Merit Finalists (332 boys and 181 girls) in high school with interest, personality, originality, self-ratings, achievement and aptitude measures. Students were reassessed in college and pre and post-college freshman year plans were compared. The results indicated that remaining in a given field appeared to be associated with having personal attributes commonly associated with the typical student, while leaving a field was related to dissimilarity between a student's attributes and those of the typical student in the field.²


An important category of student is the undecided student. Chase and Keene observed an entering freshman class across five semesters to see if there was a difference in the motivation for academic work between the students who declared a major and those who did not. The motivational indicators were operationally defined as grade achievement (GPA) and the number of accumulated credit hours. The results indicated that the longer a student waited to declare a major the lower were the motivational indicators.¹

Similarly, Foote did a study which compared a population of 695 Arts and Sciences students (331 male and 364 female) who had determined their majors and those who had not during a two-year period. The first comparison group (the determined group) entered the university in the fall of 1975, and as of the fall of 1977 had not changed their original major designation. It was found that this group was more likely to remain in school and to achieve greater academic success than the undetermined group. Women were more heavily represented in the determined group than were men (130 males and 254 females). No differences were found on age, residency, marital, veteran, or ethnic status. High school percentile rank and ACT entrance test scores appeared to be more related to persistence in college than major

designated. The determined group who persisted in school more than two years accounted for less than 8% of the original freshman Arts and Sciences class.¹

In discussing the undecided student from a developmental perspective, Gordon writes:

Undecided students are in many stages of vocational development. Counselors and teachers can provide the structure and support needed to challenge students to move into the next level of vocational maturity. Career planning and counseling services must provide environments in which students may learn to honestly examine their strengths, set goals, design plans of action, and continually evaluate their progress. Rather than viewing uncommitted students as having personality or ability differences, we may acknowledge them as expressing different levels in the developmental process.²

Walsh, et. al. conducted a study which explored the differences on variables of satisfaction, self concept, self-acceptance, and vocational maturity between freshman students, including 70 females and 70 males, who made congruent and incongruent occupational choices. The variables were operationally defined by the College Student Satisfaction Questionnaire, and Tennessee Self-Concept Scale, the Berger Scales, and the Vocational Development Inventory. The congruent and incongruent current occupational choice groups were defined operationally using the Self Directed Search.


The initial analysis revealed that congruent or incongruent person-environment relationships tended not to be associated with the variables used in the study. The only significant finding suggested that congruent males tended to report more of a healthy openness and capacity for self-criticism than the incongruent females. However, the unplanned analysis using a more rigorous definition of congruence found that congruent person-environment relationships tended to be associated with the satisfaction variables. The congruent males reported greater satisfaction and a higher level of personal adjustment than the incongruent females. However, the incongruent females tended to be more accepting of others than the congruent males.1

Walsh and Hanle investigated the differences in vocational maturity, academic aptitude, and achievement variables among female sorority students who made congruent, incongruent and undecided occupational choices. The variables were operationally defined by the Career Maturity Inventory, the American College Test Battery, and a self-report questionnaire. Congruent, incongruent, and undecided current occupational choice groups were defined operationally using the Self-Directed Search. In general, the findings suggested that college students who report an occupational

choice consistent with their personal characteristics seem to be more vocationally mature than those who report an occupational environment inconsistent with their personal style or students who remain undecided. The direction of the findings on the academic achievement and aptitude variables (although not significant) showed that the congruent females tended to be academically more successful compared to incongruent and undecided female students.

In summary, the evidence reported in the study tended to support Holland's contention that congruent person-environment relations are associated with vocational maturity. However, congruent person-environment relations were not found to be significantly associated with vocational competence, academic achievement and academic aptitude variables.¹

In a study which tested three predictions derived from Holland's theory of vocational development regarding academic achievement, groups of 424 female and 392 male entering college freshmen were typed using the Strong-Campbell Interest Inventory and were categorized in terms of congruency, consistency, and differentiation. The results indicated that students whose personality types were congruent with their declared majors experienced greater

academic success than both incongruent and undecided students. Both incongruent freshmen and freshmen who were decided on a major while possessing indefinite personality types achieved higher GPAs than students who declared themselves undecided as to major. Students who had a definite major in mind, regardless of the degree of congruency, tended to fare better academically than students who were undecided. Students with personality codes of high or low consistency outperformed students with moderately consistent codes. Freshman males with differentiated personal orientations achieved higher GPAs than those having nondifferentiated personality profiles. For females, differentiation was not significant. In all sex comparisons female trends paralleled male trends and females generally outperformed males.¹

During the past three decades the number and complexity of occupations available to college youth in general and more recently to women specifically has increased significantly. Consequently, college students today have more difficulty in deciding upon a major field of study. Astin estimates that more than 50% of the students change majors while in college.² The preceding review of the literature


bears out this fact. It also confirms the fact that college students are undergoing a major developmental task in making choice of a major/career, and that there is a crucial need for strategies of intervention to assist all students beginning the freshman year with this developmental process.

The review of the literature has revealed that there are distinct developmental tasks to be accomplished during the college years. The areas of interpersonal relationships, academic achievement and major choice are greatly affected by the accomplishment of these tasks. Freshmen are in the beginnings of the stage described as late adolescence-early adulthood. They are exploring in these areas. Women specifically have abilities in the interpersonal area where the emphasis has traditionally been placed. There is a need to help them increase their self awareness and redefine their developmental goals and objectives in all of these areas.
CHAPTER III

METHOD AND PROCEDURE

This section contains a discussion of the research design, subjects, selection procedures, instruments, participant procedures, and method of analysis for this project.

Research Design

This study was a normative survey utilizing a modified-experimental design. In this study survey testing was used with two randomly assigned groups of subjects, each assigned to a different condition.

The two groups, randomized subjects, post-test only design was used.

<table>
<thead>
<tr>
<th>GROUP</th>
<th>INDEPENDENT VARIABLE</th>
<th>POSTTEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>(R) E</td>
<td>X</td>
<td>Yz</td>
</tr>
<tr>
<td>(R) C</td>
<td>-</td>
<td>Yz</td>
</tr>
</tbody>
</table>

This is one of the simplest and most powerful of all experimental designs. The randomization controls for all possible extraneous variables and assures that any initial differences between the groups are attributable only to chance and therefore will follow the laws of probability.
The main advantage of this design is randomization. Another is that it can be extended to include more than two groups if necessary. This design did not permit the investigator to assess change. But since this was not of interest in Hypotheses 1-8, it was appropriate.

Inasmuch as the data in Hypothesis 9 was examined at the beginning and end of the school year to determine frequency and percent of change, a slightly different treatment was applied.

**Subjects of the Study**

The subjects for this study consisted of 150 Black female college students from the 1982-83 entering freshman class at Spelman College, which is an historically black liberal arts college for women. The sample was stratified according to science, non-science and undecided majors. Each category of students included in the sample represented the percentage of the group found in the total freshman population. The sample was considered intact since the number of subjects included in the study did not fall below minimum percent of the total freshman population.

**Selection Procedure**

An alphabetical listing of the total freshman class by category (science, non-science and undecided) was established. From the three lists, the appropriate percentage for each group was randomly chosen until the number for each group was obtained. Five additional students were chosen as
alternates from each of the three groups. One-half of the pool obtained in this manner was randomly assigned to the experimental group and one half to the control group.

In order to maintain confidentiality, the names of students involved in the study were transformed into codes. Data were analyzed and reported in such a manner as to prevent the identification of any student on whom information was collected.

**Instruments**

The method of gathering data was through the use of paper and pencil instruments—the Student Developmental Task Inventory (SDTI-2), the Strong-Campbell Interest Inventory (SCII), the Attitude Questionnaire on Interpersonal Relationships, the American Council on Education (ACE) Questionnaire, the New Student Form—and through student records.

The Student Developmental Task Inventory was used to measure developmental task achievement. The SDTI-2 consists of 140 items which are divided into the following developmental tasks: developing autonomy, developing purpose and developing mature interpersonal relationships. Each of the developmental tasks is further divided into three subtasks which collectively reflect the task. The items represent sample behaviors of the developmental tasks for which the individual indicates achievement by a "true" or "false" response. A total score of 48 each can be obtained on the
Developing Autonomy Scale and the Developing Purpose Scale and 44 on the Developing Mature Interpersonal Relationships Scale. Total task scores indicate the number of behaviors the individual has achieved.

Methods of measuring reliability of the instrument included estimates of temporal stability and internal consistency. The Pearson product-moment correlations ranged from .85 to .93 with most clustered near .90, thus indicating that scores are not expected to vary greatly over short periods of time. The Alpha coefficients ranged from .45 to .85, with the inventory as a whole having a coefficient of .90.

The validity of Task 1, Developing Autonomy, and its subtasks was investigated through correlation with two College Student Questionnaire scales and through contrasted groups. The Super, Zelkowitz and Thompson (1975) Career Development Inventory (Adult Form I) was used to estimate the validity of Task 2, Developing Purpose. Contrasted groups were established to investigate the validity of Task 3, Developing Mature Interpersonal Relationships.¹

The Strong-Campbell Interest Inventory (SCII) was used as a criterion for determining the direction of change of

majors by students toward or away from their inventoried vocational interests. The SCII is designed to measure the vocational interests of females and males but does not in any way measure ability. This instrument consists of 325 items grouped into seven parts. The first five parts are concerned with a person's "like", "dislike", or "indifference" to the areas of occupations, school subjects, activities, amusements, and types of people. The last two parts require the individual to indicate a preference between two activities and to describe one's characteristics.

The scores for the SCII are reported on a special computer form called a "profile" which includes both a male and female scale. The profile is structured around an occupational taxonomy devised by John Holland that organizes the world of work into six basic patterns of occupational interest—realistic, investigative, artistic, social, enterprising and conventional. The scores are reported on three scale groupings. On the six General Occupational Themes Scales the range of scores is from 30 to 70 with the average person scoring 50. On the 23 Basic Interest Scales the average adult scores about 50 with most people scoring between 30 and 70. On the Occupational Scales members of an occupation score about 50 on their own scale. People-in-general score between 26 and 44. A person who scores high on this scale has many interests in common with the workers in that occupation.
Interest inventories can be used in many ways, one of which is as an aid in making educational and occupational choices. Campbell notes that in order for students to make well-informed choices, they should have access to good occupational information, professional advice, and the best possible data about themselves. "The SCII has been designed specifically for these situations, and the information it provides on a person's patterns of interests is directly applicable to the making of educational and curricular choices."\(^1\)

A questionnaire developed by the writer was used to determine the level of interpersonal relationship skills. It is a modified version of the Attitude Questionnaire #10, Self Evaluation in Personal Relationships, which is part of a video tape series on Adolescent Love and Dating: Part 2, published by the Butterick Publishing Company, a division of the American Can Company, Altoona, Pennsylvania. The questionnaire was adapted for use in this study by changing the questions to statements, relating the statements to college situations, changing the mode of response to a frequency pattern, changing the wording in a number of instances, and adding other items.

The Attitude Questionnaire on Interpersonal Relationships consists of 48 statements of behaviors and attitudes related to interpersonal relationships. Four areas of concern are represented in the statements—(1) Relationships with Peers or Friends, (2) Relationships with Members of the Opposite Sex, (3) Relationships with Adults and Authority Figures, and (4) General Personal/Social. The subject is asked to respond on a four-point Likert scale by indicating the frequency with which an individual reacts, feels or handles the social situations represented by the statements. The possible responses include (1) almost always or always, (2) usually, (3) seldom, or (4) never or rarely. The six situations represented include the Residence Hall, Classroom, Social Gathering, Community, Office/Work, and Situations in General. The highest possible score is +90 or -90.

The questionnaire was pilot tested with a group of 24 female freshman students who were not involved in the study. The Pearson r was used to measure the reliability of the instrument. The coefficient of correlation was .66, thus indicating that the scores should not vary excessively over a short period of time. Face validity was established through examination of the questionnaire by a qualified researcher, Dr. R. B. Winston, Jr., who has developed and published a similar instrument.

The American Council on Education (ACE) Questionnaire and the New Student Slip were used to collect data on the
intended curriculum (major) and vocational choice. The ACE Questionnaire is a student information form used by the American Council on Education and the University of California at Los Angeles to collect information on entering classes each year as part of a continuing study of higher education. This research is an effort to achieve a better understanding of how students are affected by their college experiences. The questionnaire contains 40 items related to personal characteristics, family background, personal preferences, political/social beliefs, future plans to which the individual responds.

The New Student Slip is an office form used to collect initial information on new student at the beginning of New Student Orientation Week. The information collected includes name, social security number, permanent address, local address, telephone number, classification, and intended major.

Description of Treatment

The results of the Student Developmental Task Inventory were interpreted to the subjects in the experimental group. After the subjects had been divided into small groups of fifteen, trained graduate student counselors interpreted their scores to them. The interpretation procedure included the following steps:
1. Subjects were given the scored answer sheet for the SDTI-2 and the Student Developmental Task Inventory booklet. The purpose of the Inventory was again explained to the subjects.

2. Subjects were given the SDTI-2 Data Sheet and instructed in its use.

3. Subjects were assisted by the counselors to formulate goals and objectives to include in a contract.

Details of the specific instructions which were given to the subjects can be found in Appendix C.

Procedure

The following procedural steps were implemented in carrying out this study.

1. Authorization was obtained from the necessary sources to conduct the research study.

2. The literature related to the pertinent aspects of this study was reviewed, summarized and incorporated into the dissertation report.

3. The sample was used in the study was selected.

4. Permission was obtained from the subjects to participate in the study and to allow semester grades to be released.

5. The design of treatment experience and materials and procedure for training graduate students was completed.

6. Pre-investigation data was collected.

7. The Attitude Questionnaire on Interpersonal Relationships to be administered following the treatment was pilot-tested.

8. The graduate students who assisted in the study were trained by the researcher.

9. The experimental subjects were exposed to the treatment early in the second semester, 1982-83.
10. Post-investigation data were collected prior to final examinations. Semester grades were collected after final exams.

11. The data collected were analyzed and interpreted.

12. The summary of findings, conclusions, implications and recommendations will be incorporated into the final dissertation report.

A training procedure was developed and conducted by the researcher for the graduate students who served as counselors. The treatment procedure was prescribed in order to minimize the effects upon the subjects which might be created by the differences in personality and style of the counselors. An outline of the procedure may be found in Appendix D.

**Analysis of the Data**

The data were collected and analyzed in the following manner:

**Collection of Data.** The data were collected in two phases which included pre-investigation data and post investment data.

Collection of pre-investigation data proceeded as follows:

1. During the fall semester, 1982 after the subjects were selected, written permission was obtained from each subject to participate in the study and to allow access to first and second semester grades.

2. The **Student Developmental Task Inventory** was administered and the scores for developmental status were collected.

3. The **Strong—Campbell Interest Inventory** was administered and the inventoried vocational interests were obtained.
4. Data on intended curriculum (major) and vocational choice were obtained from the American Council on Education Questionnaire and the New Student Slip.

5. Data on the age, SAT or ACT scores, first semester grade point average, activities in which each subject participated were obtained from the college records to be used in developing the profile.

6. Data on the second semester major were collected prior to final examinations.

Collection of post-investigation data proceeded as follows:

1. Early in the Spring semester, 1983 after registration, the Student Developmental Task Inventory were interpreted to the subjects in the experimental group by the trained graduate assistants.

2. The Attitude Questionnaire on Interpersonal Relationships was administered and the scores obtained, data on curriculum adjustment, if any, and the activities in which each subject participated was collected prior to final examinations.

3. The second semester grade point averages were collected at the end of the semester.

**Statistical Treatment of Data**

The Fisher $t$ test for uncorrelated samples was used to determine the significance of the differences between means in hypotheses one and two. If a statistically significant difference was found between the means of the Experimental and the Control groups, the researcher would conclude that awareness of developmental status had a significant effect on academic performance and interpersonal functioning. The null hypotheses would be rejected.

The Pearson $r$ was used to determine the relationship between the variables in hypotheses three, four, five, six,
seven, and eight. If a significant relationship was found between pairs of variables in the Experimental group or the Control group, hypotheses three, four, five, six, seven, and eight would be rejected.

The direction of change of major was compared with the inventoried interests on SCII in determining curriculum adjustment in hypothesis nine. The Fisher exact probability test and Chi Square were used to determine the significance level for the difference in frequencies. If there was a greater significant difference in the frequency of curriculum change toward the inventories career interests in the Experimental group than in the Control group, the researcher would conclude that awareness of developmental status significantly affected curriculum adjustment. The null hypothesis would be rejected.

The .05 level of significance was used as the decision rule in rejecting or accepting each null hypothesis.
CHAPTER IV

RESULTS AND DISCUSSION

This chapter presents the statistical analysis and descriptive analysis of the data and a discussion of the research findings for this study.

The subjects for this study were taken from the 1982-83 freshman class at Spelman College. One hundred and fifty students were selected through a stratified random sampling procedure from a total enrollment of 445 students. Of the 150 students initially selected for the sample—75 each in the experimental and control groups—thirty-four were eliminated before completion of the study. There were 9 withdrawals from the college and the data were incomplete for 25 of the subjects as a result of failure to complete either the Strong-Campbell Interest Inventory, the Attitude Questionnaire on Interpersonal Relationships or the experimental treatment. Included in the subjects with incomplete data were 18 students who either failed to take the Strong-Campbell Interest Inventory or who did not take it in time for the results to be obtained and used. There were also 7 subjects in the experimental group who did not participate in the treatment session.
An examination of the respondents who were lost revealed a mixture of high, low and average SAT scores and grade point averages in both the experimental and the control groups. SDTI scores were also similar. It was therefore assumed that this loss would not influence the outcome or internal validity of the study. In addition, the ratio of science, non-science, and undecided subjects to the total number in the experimental and the control groups of the final sample, differed by less than one per cent as compared to the original groups with one exception. The ratio of undecided subjects to the total number in the experimental group increased by 1.21 per cent.

While there was a loss of 34 students, the size of the sample did not fall below 20 per cent of the total freshman population, which was the guideline in this study for considering the sample intact, as it is the percentage sometimes suggested for larger samples in descriptive research. However, the ratio of science, non-science and undecided subjects to the total freshman population decreased by 16.0 per cent, 10.7 per cent and 2.7 per cent respectively in the experimental group and 8.0 per cent, 5.3 per cent and 2.7 per cent respectively in the control group. The final sample, upon which the results of the study were based, consisted of 53 subjects in the experimental group and 63 subjects in the control group.
Statistical Analysis

Four statistical procedures were utilized in analyzing the data for this study: the Fisher t-test for uncorrelated samples, the Pearson product moment coefficient of correlation, the Chi-Square test of significance and the Fisher exact probability test. The results obtained are presented below.

Academic Performance/Interpersonal Functioning

The first two hypotheses were concerned with determining the influence of the awareness of developmental status on academic performance and interpersonal functioning by comparing the experimental and the control groups. Hypothesis one was formulated to determine the mean difference in academic performance between the two groups. Hypothesis two was formulated to determine the mean difference in interpersonal functioning between the two groups. The Fisher t-test was employed to test both hypotheses.

\[ H_0: \text{There is no statistically significant difference between the mean academic performance of subjects who are aware of their developmental status and those who are not.} \]

The results of the statistical analysis made in testing hypothesis one are presented in table 1.
TABLE 1
SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS IN ACADEMIC PERFORMANCE OF THE SAMPLE GROUPS

<table>
<thead>
<tr>
<th>Group</th>
<th>Academic Perform (GPA) Mean</th>
<th>SD</th>
<th>Mean Difference</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>2.44</td>
<td>.86</td>
<td>-.07</td>
<td>114</td>
<td>-.4557</td>
</tr>
<tr>
<td>(N=53)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>2.51</td>
<td>.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=63)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 shows the data analysis pertaining to academic performance. The mean GPA for the experimental group was slightly lower than the mean GPA for the control group. However, the mean difference between the two groups was not significant. On the basis of the analysis null hypothesis one was accepted.

$H_0$: There is no statistically significant difference between the mean interpersonal functioning of subjects who are aware of their developmental status and those who are not.

The results of the analysis of data on interpersonal functioning are shown in table 2.
TABLE 2

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS IN INTERPERSONAL FUNCTIONING OF THE SAMPLE GROUPS

<table>
<thead>
<tr>
<th>Group</th>
<th>Interpersonal Mean</th>
<th>SD</th>
<th>Difference</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>58</td>
<td>13.99</td>
<td></td>
<td>8</td>
<td>114</td>
</tr>
<tr>
<td>(N=53)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>50</td>
<td>12.15</td>
<td></td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>(N=63)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at the .01 level

An examination of the data in table 2 revealed that the mean interpersonal functioning for subjects in the experimental group (who were aware of their developmental status) was higher than that for the subjects in the control group (who were not aware of their developmental status). The mean difference in the interpersonal functioning of subjects between the two groups was statistically significant at the .01 level. On the basis of these data, null hypothesis two was rejected.

In discussing the results of the data analyses for null hypotheses one data indicated that there was no significant difference in the mean academic performance (GPA) of subjects in the experimental group and those in the control group. Data analysis on null hypothesis two revealed a significant difference in interpersonal functioning (IF) at the .01 level. Therefore, hypothesis one was accepted and hypothesis
two was rejected indicating that awareness of developmental status made no difference in academic performance but appeared to significantly influence interpersonal functioning.

Correlation of Autonomy, Purpose and Interpersonal Relationship-Developmental Status with Academic Performance

Hypotheses three, four and five were concerned with the relationship between developmental status and academic performance. Hypothesis three was formulated to determine the degree of relationship between autonomy-development status and academic performance. Hypotheses four and five were formulated to determine the degree of relationship between purpose-development status, interpersonal relationship-development status and academic performance respectively. The Pearson product moment coefficient of correlation was employed in the three hypotheses to test the relationship between these variables.

\[ H_0^3: \text{There is no statistically significant relationship between the mean autonomy-development status and the mean academic performance of subjects in the experimental and the control groups.} \]

The results of the statistical analysis for hypothesis three are presented below in table 3.
According to the data in Table 3, the correlation coefficient between the mean autonomy-developmental status and the mean GPA for subjects in the experimental group was positive low and not significant. For the control group, the correlation coefficient was negative low and not significant. Based upon these data null hypothesis three was accepted.

$4H_0$: There is no statistically significant relationship between the mean purpose-developmental status and the mean academic performance of subjects in the experimental and the control groups.

Data analysis for hypothesis four is presented in Table 4.
The data in table 4 indicated that the means for purpose-developmental status were similar for the experimental and the control groups. There was a positive but low correlation between the mean purpose-developmental status and the mean GPA of subjects in the experimental group. For subjects in the control group there was a negative but low correlation between these two variables. Hypothesis four was accepted indicating no significant relationship between the mean purpose-developmental status and the mean academic performance of subjects in either group.

$H_0$: There is no statistically significant relationship between the mean interpersonal relationship-developmental status and the mean academic performance of subjects in the experimental and the control groups.

Table 5 presents the data analysis for this hypothesis.
TABLE 5

MEAN INTERPERSONAL RELATIONSHIP-DEVELOPMENTAL STATUS AND MEAN ACADEMIC PERFORMANCE (GPA) OF SUBJECTS IN SAMPLE GROUPS

<table>
<thead>
<tr>
<th>Group</th>
<th>Interpersonal Rel.</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Experimental</td>
<td>29.91</td>
<td>4.96</td>
</tr>
<tr>
<td>(N=53)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>29.03</td>
<td>5.21</td>
</tr>
<tr>
<td>(N=63)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean interpersonal relationship-developmental status was very similar for the experimental and the control groups. The positive but low coefficient of correlation for the experimental group and the negative but low coefficient of correlation for the control group indicated that there was no significant relationship between the mean interpersonal relationship-developmental status and the mean academic performance of subjects in either group. As a result, null hypothesis five was accepted.

In summary, the results of the data analysis as shown in tables 3, 4 and 5 indicated that there was no significant relationship between autonomy-developmental status, purpose-developmental status, interpersonal relationship-developmental status and academic performance for the experimental or the control group.
Correlation of Autonomy, Purpose and Interpersonal Relationship-Developmental Status with Interpersonal Functioning

Hypotheses six, seven and eight were concerned with the relationship between developmental status and interpersonal functioning. In hypothesis six the relationship between autonomy-developmental status and interpersonal functioning was addressed. The relationship of purpose-developmental status and interpersonal relationship-developmental status to interpersonal functioning was addressed in hypotheses seven and eight respectively. The Pearson product moment coefficient of correlation was used in examining these relationships.

H\(_0\): There is no statistically significant relationship between the mean autonomy-developmental status and the mean interpersonal functioning of subjects in the experimental and the control groups.

Data pertaining to hypothesis six are presented below.

<table>
<thead>
<tr>
<th>GROUP</th>
<th>AUTONOMY</th>
<th>PURPOSE</th>
<th>AUTONOMY</th>
<th>PURPOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEAN</td>
<td>SD</td>
<td>MEAN</td>
<td>SD</td>
</tr>
<tr>
<td>Experimental</td>
<td>27.85</td>
<td>7.04</td>
<td>58</td>
<td>13.99</td>
</tr>
<tr>
<td>(N=53)</td>
<td></td>
<td></td>
<td></td>
<td>51</td>
</tr>
<tr>
<td>Control</td>
<td>26.65</td>
<td>4.76</td>
<td>50</td>
<td>12.15</td>
</tr>
<tr>
<td>(N=63)</td>
<td></td>
<td></td>
<td></td>
<td>61</td>
</tr>
</tbody>
</table>

***Significant at the .001 level
The mean and standard deviation for autonomy-development status were lower for subjects in the control group than for those in the experimental group, while the product moment correlation coefficient was higher for the control group. While the correlation coefficient approached the required take value of .2707 to be significant at the .05 level the relationship between autonomy and interpersonal functioning for the experimental group was not significant. A highly significant relationship was shown for the control group at the .001 level. Therefore, hypothesis six was rejected for the control group but accepted for the experimental group.

$H_0$ : There is no statistically significant relationship between the mean purpose-developmental status and the mean interpersonal functioning of subjects in the experimental and the control groups.

Data pertaining to hypothesis seven are presented in table 7.

**TABLE 7**

<table>
<thead>
<tr>
<th>Group</th>
<th>Purpose Mean</th>
<th>SD</th>
<th>IF Mean</th>
<th>SD</th>
<th>df</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>28.81</td>
<td>7.04</td>
<td>58</td>
<td>13.99</td>
<td>51</td>
<td>+.26</td>
</tr>
<tr>
<td>(N=53)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>28.29</td>
<td>7.44</td>
<td>50</td>
<td>12.15</td>
<td>61</td>
<td>+.25*</td>
</tr>
<tr>
<td>(N=63)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the .05 level
The means and standard deviations for purpose-developmental status were similar for subjects in the experimental group and the control group. The correlation coefficients were also very similar. However, while purpose-developmental status was not significantly correlated with interpersonal functioning for the experimental group, there was a significant correlation for the control group at the .05 level. Hypothesis seven was rejected for the control group but accepted for the experimental group.

**Hₐ:** There is no statistically significant relationship between the mean interpersonal relationship-developmental status and the mean interpersonal functioning of subjects in the experimental and the control groups.

Data analysis for hypothesis eight is presented in table 8.

### TABLE 8

<table>
<thead>
<tr>
<th>Group</th>
<th>Interpersonal Rel.</th>
<th>IF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Experimental</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=53)</td>
<td>29.91</td>
<td>4.96</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=63)</td>
<td>29.03</td>
<td>5.21</td>
</tr>
</tbody>
</table>

**Significant at the .01 level.**
The mean and standard deviation for interpersonal relationship-developmental status were similar for subjects in the experimental and control groups. A significant correlation between interpersonal relationship-developmental status and interpersonal functioning was found at the .01 level for both groups and hypothesis eight was rejected.

In summary, the results of the data analysis as shown in tables 6, 7, and 8 indicated a significant relationship between autonomy-developmental status, purpose-developmental status and interpersonal functioning for the control group only. A significant relationship between interpersonal relationship-developmental status and interpersonal functioning was found for the experimental group. Except in the case of $H_0^8$, lack of exposure tended to accompany significant relationship.

Comparison of Difference in Direction of Curriculum Adjustment

Hypothesis nine was concerned with determining the influence of the awareness of developmental status upon curriculum adjustment. This was investigated by examining the direction of change in curriculums (majors) made by subjects in the experimental and the control groups toward or away from their inventoried interests.

$9H_0$: There is no statistically significant difference in the direction of curriculum adjustment among subjects who are aware of their developmental status and those who are not.
Tables 9 and 10 present the results of the statistical analysis of these data.

### TABLE 9

**FREQUENCY OF CURRICULUM CHANGES FOR SUBJECTS IN THE EXPERIMENTAL AND CONTROL GROUPS**

<table>
<thead>
<tr>
<th>Group</th>
<th>Curriculum Change</th>
<th>No Curriculum Change</th>
<th>df</th>
<th>Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>4</td>
<td>49</td>
<td>1</td>
<td>3.676</td>
</tr>
<tr>
<td>(N=53)</td>
<td>8</td>
<td>92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>14</td>
<td>49</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 10

**DIRECTION OF CURRICULUM CHANGES FOR SUBJECTS IN THE EXPERIMENTAL AND CONTROL GROUPS**

<table>
<thead>
<tr>
<th>Group</th>
<th>Direction of Curriculum Change</th>
<th>Negative</th>
<th>%</th>
<th>Positive</th>
<th>%</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>Negative</td>
<td>4</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>.6536</td>
</tr>
<tr>
<td>(N=4)</td>
<td>Positive</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>Negative</td>
<td>10</td>
<td>71</td>
<td>4</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>(N=14)</td>
<td>Positive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the analysis of data using chi square as shown in table 9 revealed that while more curriculum changes were made by subjects in the control group than by those in the experimental group, the difference was not
significant. In addition, results from the Fisher exact probability test as shown in table 10 revealed no significant difference in the direction of curriculum adjustment for subjects in the experimental and the control groups. Hence, hypothesis nine was accepted.

Proposed Student Profile

The third component of the purpose of this study called for the identification and initiation of a developmental profile for a selected group of Black freshman college women. The findings of this study included: (a) significant differences between the mean interpersonal functioning of the experimental and the control subjects ($t=3.2520$, $df=114$; $p .01$) and (b) a significant relationship between SDTI--interpersonal relationships and interpersonal functioning (IF) (experimental --$r=.39$ and control--$r=.49$).

It was the aim of this aspect of the study to (a) identify a profile of selected characteristics of the sample population as an initial step in facilitating the planning of future programs; and (b) to develop expectancy tables employing the variables that indicated significant relationships. The results of the data analysis are presented descriptively in an academic profile, a developmental profile, a curricular choice profile and an interpersonal functioning profile.
The Academic Profile is shown in table 11. This includes the combined verbal and mathematics scores on the Scholastic Aptitude Test and the grade point averages (GPA).

The mean SAT score for the combined experimental and control groups was 787. Almost 50 percent (48.3 percent) of the subjects had SAT scores of 800 and above—13 percent of which had scores of 1,000 or above. The SAT scores which the subjects most frequently made (19.8 percent) were between 800 and 899. Those with the second highest frequency (19.0 percent) were between 700 and 799. Nearly 52 percent (51.7 percent) of the subjects had scores below 800.

The mean GPA for the experimental and control groups when combined was 2.48. Nearly 75 percent (74.9 percent) of the subjects had a GPA of C or better at the end of the second semester. Of this number 32.7 percent had GPAs of 3.00 and above. The largest number of subjects (42.2 percent) had GPAs between 2.00 and 2.99.

The Developmental Profile includes the Student Developmental Task Inventory (SDTI) score results in Task 1 (Autonomy), Task 2 (purpose), and Task 3 (Interpersonal Relationships) for subjects in the experimental and the control groups. These are shown in table 12.

The mean number of developmental tasks completed by subjects in the experimental group was 27.85 (58 percent)
TABLE 11

ACADEMIC PROFILE

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Total Scholastic Aptitude Test Score</th>
<th>Grade Point Averages (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Below 600</td>
<td>699</td>
</tr>
<tr>
<td>Experimental</td>
<td>797</td>
<td>f 9</td>
<td>6</td>
</tr>
<tr>
<td>N=53</td>
<td></td>
<td>% 17.0</td>
<td>11.3</td>
</tr>
<tr>
<td>Control</td>
<td>778</td>
<td>f 9</td>
<td>14</td>
</tr>
<tr>
<td>N=63</td>
<td></td>
<td>% 14.3</td>
<td>22.2</td>
</tr>
<tr>
<td>Total</td>
<td>787</td>
<td>f 18</td>
<td>20</td>
</tr>
<tr>
<td>N=116</td>
<td></td>
<td>% 15.5</td>
<td>17.2</td>
</tr>
</tbody>
</table>

Note: N refers to the number of participants in each group.
<table>
<thead>
<tr>
<th>Group</th>
<th>Task 1 Autonomy (Max = 48)</th>
<th>Task 2 Purpose (Max = 48)</th>
<th>Task 3 Interpersonal Rel. (Max = 44)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent of Maximum</td>
<td>Percent of Maximum</td>
<td>Percent of Maximum</td>
</tr>
<tr>
<td>Experimental</td>
<td>27.85 58</td>
<td>28.81 60</td>
<td>29.91 68</td>
</tr>
<tr>
<td>N=53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>26.65 56</td>
<td>28.29 59</td>
<td>29.03 66</td>
</tr>
<tr>
<td>N=63</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
for autonomy; 28.81 (60 percent) for purpose; and 29.91 (68 percent) for interpersonal relationships. This was similar to the number completed by subjects in the control group which was 26.65 (65 percent), 28.29 (59 percent) and 29.03 (66 percent) respectively. It is interesting to observe that the largest number of developmental tasks completed by subjects in both groups was in Task 3, interpersonal relationships.

The Curricular Choice Profile as shown in Table 13 indicated the pre- and post-treatment curricular choices for the experimental and the control groups.

**TABLE 13**

**CURRICULAR CHOICE PROFILE**

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Treatment Curricula Choice</th>
<th>Post-Treatment Curricula Choice</th>
<th>Difference Between Pre- and Post-Treatment Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>Experimental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>28</td>
<td>52.8</td>
<td>28</td>
</tr>
<tr>
<td>Non-Science</td>
<td>18</td>
<td>34.0</td>
<td>22</td>
</tr>
<tr>
<td>Undecided</td>
<td>8</td>
<td>13.2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>53</td>
<td>100.0</td>
<td>53</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>31</td>
<td>49.2</td>
<td>30</td>
</tr>
<tr>
<td>Non-Science</td>
<td>27</td>
<td>42.9</td>
<td>24</td>
</tr>
<tr>
<td>Undecided</td>
<td>5</td>
<td>7.9</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>63</td>
<td>100.0</td>
<td>63</td>
</tr>
</tbody>
</table>
For the experimental group there was an increase of 22 percent in the number of subjects who chose non-science curricula after treatment; and a decrease of 57 percent in the number of subjects who were undecided in their curricular choice, which represented a positive change. The number of subjects in science curricula remained the same. For the control group there was a decrease of 3 percent and 11 percent in the number of subjects who chose science and non-science curricula respectively after treatment. However, it is of interest to observe that there was an increase of 80 percent in the number of subjects who were undecided in their curricula choice, which represented a negative change.

The Interpersonal Functioning Profile as derived from the subjects' scores on the Attitude Questionnaire on Interpersonal Relationships (AQIR) is presented in table 14.

**TABLE 14**

**INTERPERSONAL FUNCTIONING PROFILE**

<table>
<thead>
<tr>
<th>Group</th>
<th>More than -2 SD</th>
<th>-2 SD to -1 SD</th>
<th>-1 SD to Mean</th>
<th>Mean to +1 SD</th>
<th>+1 SD to +2 SD</th>
<th>+2 SD and Above</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>f 2</td>
<td>6</td>
<td>17</td>
<td>18</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>N=53</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD = 13.99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>f 3</td>
<td>5</td>
<td>24</td>
<td>21</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>N=63</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD = 12.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% 4.8</td>
<td>7.9</td>
<td>38.1</td>
<td>33.3</td>
<td>14.3</td>
<td>1.6</td>
</tr>
</tbody>
</table>
The mean interpersonal functioning for subjects in the experimental and control groups was 58 and 50 respectively. This was significantly different for the two groups. The standard deviation was 13.99 for the experimental group and 12.5 for the control group. The highest score which could be obtained on the AQIR was 96. For the subjects in the experimental group, 28 (52.9 percent) scored between the mean and two standard deviations or more above the mean. For the subjects in the control group, 31 (49.2 percent) scored at this same level. For the combined groups (N=116), a little more than one half (50.9 percent) scored at this same level.

When the experimental and control groups were combined and expectancy tables were developed, only one of the variables tended to predict with a limited degree of accuracy, college GPA. This variable was SAT scores. It is significant to note that the non-intellective variables, i.e., interpersonal functioning, developmental autonomy,
purpose and interpersonal relationships, tended to be non-
predictive in this study.

Tables 15 and 16 show the relationship which was
found between the SAT scores and academic performance
(GPA). The coefficient of correlation between the mean
SAT scores and the mean GPA of the subjects in the experi-
mental and control groups is shown in table 15 below.

TABLE 15

MEAN SAT SCORES AND MEAN ACADEMIC PERFORMANCE
(GPA) OF COMBINED SAMPLE GROUPS

<table>
<thead>
<tr>
<th>Group</th>
<th>SAT Scores</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Experimental and Control</td>
<td>787</td>
<td>176.61</td>
</tr>
<tr>
<td>(N=116)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at the .01 level

The mean SAT score for the experimental and control
groups combined is 787. The correlation coefficient of
.384 showed a relationship between academic performance
(GPA) and SAT scores significant at the .01 level. This
finding tended to reinforce the predictive relationship
revealed between these two variables.

Table 16 presents an expectancy table of the GPAs
according to the total SAT scores of the subjects (N=116)
in the study.
TABLE 16

EXPECTANCY TABLE FOR FRESHMAN GRADES

<table>
<thead>
<tr>
<th>Total SAT Score Interval (V+Q)</th>
<th>N</th>
<th>Obtaining a GPA Below 2.00</th>
<th>Obtaining a GPA of 2.00 to 2.99</th>
<th>Obtaining a GPA of 3.00 and Above</th>
</tr>
</thead>
<tbody>
<tr>
<td>1400-1499</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>100</td>
</tr>
<tr>
<td>1300-1399</td>
<td></td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1200-1299</td>
<td></td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1100-1199</td>
<td>4</td>
<td>--</td>
<td>--</td>
<td>100</td>
</tr>
<tr>
<td>1000-1099</td>
<td>10</td>
<td>--</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>900-999</td>
<td>18</td>
<td>11</td>
<td>44</td>
<td>45</td>
</tr>
<tr>
<td>800-899</td>
<td>23</td>
<td>22</td>
<td>65</td>
<td>13</td>
</tr>
<tr>
<td>700-799</td>
<td>22</td>
<td>27</td>
<td>41</td>
<td>32</td>
</tr>
<tr>
<td>600-699</td>
<td>20</td>
<td>30</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>500-599</td>
<td>13</td>
<td>46</td>
<td>31</td>
<td>23</td>
</tr>
<tr>
<td>400-499</td>
<td>5</td>
<td>60</td>
<td>40</td>
<td>--</td>
</tr>
<tr>
<td>Total</td>
<td>116</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the data in table 16, subjects who received an SAT score between 800 and 899, the chances were the highest (65 in 100) that they would obtain a GPA of 2.00 to 2.99. For the subjects who received an SAT score between 600 and 699, the chances were 50 in 100 that they would obtain a GPA of 2.00 to 2.99. For the subjects who received an SAT score of 400 to 499, the chances were 60 percent that they would obtain a GPA below 2.00. The
subjects receiving an SAT score of 1000 to 1099 had an 80 percent chance of receiving a GPA of 3.00 or above.

Discussion

According to the literature reviewed, non-intellectual factors such as self-discipline, interpersonal relationships, self-concept, motivation, aspirations, etc., as well as intellectual factors, have been found to affect academic performance. In addition, studies have consistently revealed that much of the identity focus of females is on relating or interpersonal relationships and that women are found to have high abilities in this area when compared with males. In this study the non-intellectual factor of developmental task achievement was investigated to determine its relationship to academic performance and interpersonal functioning.

Academic Performance/
Interpersonal Functioning

In the results of this study a relationship was found between developmental task achievement and interpersonal functioning but not with academic performance. The mean interpersonal functioning of subjects who were treated was significantly higher than that of the subjects in the control group. The mean difference in the interpersonal functioning of subjects in the two groups was statistically significant at the .01 level. At the same time, the mean academic performance of subjects who were treated did not
differ significantly from that of subjects in the control group. The statistical findings supported hypothesis one but did not support hypothesis two.

**Correlation of Autonomy, Purpose and Interpersonal Relationship-Developmental Status with Academic Performance**

The present study also revealed no significant relationship between the non-intellective factors of autonomy-development status, purpose, developmental status, interpersonal relationship-development status and academic performance as was hypothesized in hypothesis three, four and five respectively. The findings supported all three of these hypotheses.

In neither instance did the literature differ with these findings. Some non-intellective factors have been found to affect academic performance and some have not. Research indicates that study habits (Hart and Keller, 1980; Braddock II and Dawkins, 1984; Zimmerman, Goldston and Gadzella, 1977); achievement motivation (Braddock II and Dawkins, 1981; Green and Farquhar, 1965; Schroeder and Sledge, 1966; Hart and Keller, 1980); and major/career choice (Reuterfor, Schneider and Overton, 1979; Sarborn, 1965; Sebok, 1971; Pitchen and Blauschild, 1970) are among the non-intellective factors which have been found to affect academic achievement significantly. Studies of factors such as personality, interest and self-concept have
revealed conflicting results. Some of these studies have also found intellective factors to be more predictive of academic performance than non-intellective factors. Schroeder and Sledge (1966) in their review of the literature found intellective factors to be more predictive of college achievement than non-intellective factors.

Correlation of Autonomy, Purpose and Interpersonal Relationship-Developmental Status with Interpersonal Functioning

The relationship between developmental status and interpersonal functioning was investigated in hypotheses six, seven and eight. While the correlation coefficient showed a nonsignificant relationship between autonomy and interpersonal functioning for the experimental group, it is noteworthy that a significant relationship was shown for teh control group at the .001 level. Therefore, while hypothesis six was accepted for the experimental group it was rejected for the control group. This would seem to suggest that there may be a relationship between autonomy developmental status and interpersonal functioning since it was significant at such a high level in the control group.

Similarly, in hypothesis seven, while purpose developmental status had no significant correlation with interpersonal functioning for the experimental group, there was a significant correlation for the control group at the .05 level. It is interesting to note, however, that \( r = +.25 \)
for the experimental group was just at .250 while $r = +.26$
for the experimental group was just below .273. This
would seem to suggest that the relationship between these
two variables tended not to be very strong.

For hypothesis eight a significant relationship
between interpersonal relationship-development status
and interpersonal functioning was found for both the
experimental and the control groups at the .05 level.

Much of the literature revealed a great need for
interpersonal relationships among women, particularly as
compared to men. Hence, a greater emphasis upon the
development of interpersonal relations. For example,
Hodgron and Fischer's study (1979) which examined sex
differences in the processes of identity and intimacy
development among college youth, revealed that while the
late adolescent male's focus was on intrapersonal aspects
of identity, the identity issues for the female seemed
to be based on relating or the interpersonal aspects.
Likewise, in Fischer's study (1981) of the transitions in
relationship style from middle adolescence to late adoles-
cence, the results suggested that women developed earlier
competence at the developmental task of relating than did
men, that particularly important were the college women's
close friendships with those of the same gender, and con-
sequently the importance of the transition to adulthood to
the development of intimate or integrated relating with
peers, particularly among women. Other studies which included this same age group (Josselson, et al., 1977; Nitzberg, 1980) revealed the same kinds of findings.

The results of the present study seem to bare out findings of previous studies with regard to female adolescents and adults and interpersonal relationships. The fact that awareness of developmental status significantly increased the interpersonal functioning of subjects in the experimental groups \( (2H_0) \); and that a significant relationship between interpersonal relationship-developmental status and interpersonal functioning was found for subjects in both groups \( (8H_0) \) seems to indicate an emphasis upon interpersonal relationship development by the subjects.

**Comparison of Difference in Direction of Curriculum Adjustment**

No significant difference in the direction of curriculum adjustment was found between subjects who were treated and those who were not. Although subjects in the control group made more curriculum changes than those in the experimental group, the difference was not significant. Therefore hypothesis nine was accepted.

According to the literature, the average college student will be found to change his/her major, more than once, while in college (Rochester and McBride, 1970; Titley and Titley, 1980; Krupka and Vener, 1978; Cook, 1965). French (1961) found that average interest scale patterns
made in the freshman year tended to have some relationship to satisfaction in the senior year. Congruence of majors chosen by freshmen (Walsh, 1973) and others (Walsh and Hamle, 1975; Reuterfors, et al., 1970) was found to influence academic success. It is interesting to note that in this study out of the eighteen subjects from both groups who made changes in majors, fourteen made them in the negative direction (away from their best inventoried vocational interests).

Proposed Student Profile

Academic Profile

The academic characteristics of the sample group in this study included a mean SAT score of 787. The average combined score according to the national norms is between 800 and 900. It is significant to note that almost 50 percent (48.3 percent) of the subjects scored at or above the national average, 13 percent of which had scores of 1000 or above. The range in which the subjects most frequently scored (19.8 percent) was between 800 and 899. Nearly 52 percent (51.7 percent) of the subjects had scores below 800. The largest number in this category (19.0 percent) had scores between 700 and 799. At the lower end, 15.5 percent of the subjects had scores below 600.

The mean grade point average for the combined sample group was 2.48. Three-fourths of the subjects (74.9 percent) had a GPA of C or better at the end of the
second semester, nearly one-third (32.7 percent) of which had GPAs of 3.00 and above. A little more than 5 percent (5.2 percent) had GPAs below 1.00. The largest number of subjects (42.2 percent) had GPAs between 2.00 and 2.99. This means that approximately 75 percent of the subjects were performing at a passing level of C or better at the end of the second semester.

When the Expectancy Table for Freshman Grades was developed and the Pearson product moment correlation coefficient between the mean SAT scores and the mean GPA of the subjects in the combined sample groups was computed; a greater relationship could be seen between these two variables. It can be observed that for students who scored between 800 and 899 on the SAT, their chances are the highest (65 in 100) that they will obtain a GPA of 2.00 to 2.99. Students who score between 600 and 699 have a 50 percent chance of obtaining a GPA of 2.00 to 2.99. For students who score between 400 and 499 the chances are 60 in 100 that they will obtain a GPA below 2.00. Students receiving an SAT score of 1000 to 1099 (as represented by ten of the subjects) have an 80 percent chance of receiving a GPA of 3.00 or above.

It is interesting to note that the correlation coefficient of .384 showed a relationship between these two variables statistically significant at the .01 level which tended to bare out the predictive relationship found between the SAT scores and GPA.
Developmental Profile

The developmental profile which is derived from the number of developmental tasks completed by the subjects in each developmental area was presented in table 12. The mean number of developmental tasks completed by subjects in the experimental group was 27.85 (58 percent) for autonomy, 28.81 (60 percent) for purpose and 29.91 (68 percent) for interpersonal relationships. For the control group subjects it was 26.65 (56 percent) for autonomy, 28.29 (59 percent) for purpose and 29.03 (66 percent) for interpersonal relationships. Since the Student Developmental Task Inventory, as indicated by the authors, is designed to be ideographic rather than normative, no comparison or reference can be made to other groups. However, it can be noted that the mean number of tasks completed by the two groups is similar and that the largest number of tasks completed by subjects in both groups was in interpersonal relationships. This bears out the findings of the literature of a greater emphasis upon the development of interpersonal relations on the part of women. In the sample group used for validity and reliability studies of the SDTI, women were also found to score higher than men on Task 3, interpersonal relationships.

Curricular Choice Profile

The curricular choice profile as presented in table 13 showed an increase of 22 percent after treatment in the
number of subjects in the experimental group who chose non-science curricula; and a decrease of 11 percent in the control group. The number of subjects in the experimental group who chose science curricula remained the same while the number of subjects in science curricula in the control group decreased by 3 percent. In the experimental group there was a loss of four or 57 percent in the number of subjects who were undecided about their curricular choice. This was considered to represent a loss in a positive direction. However, in the control group there was an increase of 80 percent in the number of subjects who were undecided in their curricular choice. This was considered to represent a gain in the negative direction.

The results of studies pertaining to the undecided student revealed that undeciderness tends to have a negative effect upon the student's progress. For example, Chase and Keene in 1981, found that the longer a student waited to declare a major the lower were the "motivational indicators" (GPA and accumulated credit hours). Foote, in 1980, found that the "determined group" was more likely to remain in school and to achieve greater academic success than the undetermined group; and the study by Reuterfors et al., in 1979, revealed that students who had a definite major in mind, regardless of the degree of congruence tended to fare better academically than students who were undecided.
Interpersonal Functioning Profile

The mean interpersonal functioning for subjects in the experimental and the control groups as represented by scores on the AQIR was 58 and 50 respectively. This represented a statistically significant difference in scores for the two groups. The highest score which could be obtained on the AQIR was 96. For subjects in the experimental group, 28 (52.9 percent) were functioning between the mean and two standard deviations or more above the mean. One standard deviation was represented by a score between 71.99-84.99 and two standard deviations by a score between 85.98 and above. It should be noted that the largest number of subjects (18 or 34.0 percent) scored within the mean range of 58.00 to 70.99.

For subjects in the control group, 31 (49.2 percent) were functioning between the mean and two standard deviations or more above the mean. One standard deviation was represented by a score between 62.15 and 73.99 and two standard deviations by a score between 74.30 and above. Nineteen (30.1 percent) of the subjects scored within the mean range of 50.00 to 61.99. However, it should be noted that the largest number of subjects (24 or 38.1 percent) scored one standard deviation below the mean within the range of 37.85 to 49.99. For the combined group (116), a little more than one-half of the subjects scored from the mean to two standard deviations or more above the mean,
while 41 (35.3 percent), the largest number scored one standard deviation below the mean.
CHAPTER V

FINDINGS, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

This chapter presents a recapitulation of this study, followed by findings, conclusions, implications and recommendations.

Purpose of Study

This study investigated the developmental status of a selected group of Black freshman college women to determine if there was a relationship between their developmental status and their academic performance, interpersonal functioning and curriculum adjustment. Specifically, the purpose of the study was threefold:

1. To determine the influence, if any, of the awareness of developmental status on academic performance, interpersonal functioning, and curriculum adjustment of freshman college women.

2. To determine the degree of relationship, if any, between developmental status, academic performance and interpersonal functioning among freshman college women.

3. To identify and initiate a developmental profile for a selected group of Black freshman college women.
Hypotheses

Nine null hypotheses were tested in this study. Hypotheses one and two were formulated to determine the influence of the awareness of developmental status on academic performance and interpersonal functioning. Hypotheses three, four and five were formulated to determine the degree of relationship between autonomy-developmental status, purpose-developmental status, interpersonal relationship-developmental status and academic performance. Hypotheses six, seven and eight were designed to test the degree of relationship between autonomy-developmental status, purpose-developmental status, interpersonal relationships-developmental status and interpersonal functioning. Hypothesis nine was concerned with determining the influence of the awareness of developmental status upon curriculum adjustment.

Significance of the Study

The results of this study are expected to contribute to the increased understanding that student affairs workers, faculty and administrators at the college level have of their student bodies. It will also contribute to the general body of knowledge about developmental task achievement particularly in reference to blacks and women. The specific anticipated contributions to educational research are:

1. the identification of information about the students' development that will support the counseling process;
2. the identification of information about the students and their developmental levels that will assist the professional student affairs staffs in designing more effective programs and targeting intervention strategies more accurately toward individuals and groups;

3. the establishment of a procedure for developing a sample developmental profile of entering classes that will facilitate advanced planning; and

4. the collection of information that will have possible implications for the identification and recruitment of prospective students.

Definition of Terms

The following terms as defined are those which relate specifically to the variables involved in this study.

1. Awareness - the level of understanding about one's development obtained from the scores on the Student Developmental Task Inventory interpreted by a professional counselor.

2. Developmental status (synonyms with developmental task achievement) - a measure of the level of accomplishment of certain behaviors as indicated by the student's scores on the Student Developmental Task Inventory, including:

a. Interpersonal Relationships - Developmental Status - behaviors related to Intimate Relationships with the Opposite Sex (IRS), Mature Relationships with Peers (MRP), and Tolerance (TOL).

b. Purpose - Developmental Status - behaviors related to Appropriate Educational Plans (EP), Mature Career Plans (CP), and Mature Lifestyle Plans (LP).

c. Autonomy - Developmental Status - behaviors related to Emotional Autonomy (EA), Instrumental Autonomy (IA), and independence (ID).

3. Academic performance - the second semester grade point average (GPA) of the student.
4. Interpersonal functioning - the self report data related to the level of personal behavior and attitude toward others as indicated by scores on the Attitudes Questionnaire on Interpersonal Relationships.

5. Curriculum adjustment - the direction of change that students in the experimental and the control groups made in their majors toward or away from their inventoried interests.

Review of the Literature

Introduction

The review of the literature was divided into five sections: (1) Developmental Tasks, (2) Developmental Status of the College Student, (3) Interpersonal Relationship Skills, (4) Academic Achievement, and (5) Choice of a Major/Career. The findings are summarized below.

Developmental Tasks

A developmental task as defined by Havighurst is "a task which arises at or about a certain period in the life of an individual, successful achievement of which leads to happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by society and difficulty with later tasks."¹ The literature revealed that the developmental task concept has evolved into a useful concept for studying human development throughout the life cycle.

Developmental Status of the College Student

The review of the literature indicated that in general there was strong agreement among human development theorists and researchers on the nature of developmental needs and accompanying tasks that are manifested during the college years. College students are characterized as being in the late adolescent-early or young adult stage of development. In this stage, students at the freshman level are mainly involved in exploring in personal relationships, educational achievement and career choice in order to establish personal identity. Conflicts of breaking away from parents (gaining autonomy), clarifying values, learning to make decisions and accepting responsibility are inherent in the developmental process. In large part their central developmental tasks are related to career development or identity.

Interpersonal Relationship Skills

The importance of the awareness of oneself and the development of interpersonal skills is stressed by Heath in discussing his model of the maturing person. He states that becoming a more mature person requires that the individual grow intellectually, form guiding values, become knowledgeable about himself/herself, and develop social and interpersonal skills. In addition, he notes that most of life's problems require interpersonal skills for their solution; and that the development of the different parts of
a person is inextricably woven into one's maturing relationships with others.¹

The review of the literature indicated that much of the identity focus of females is on relating or interpersonal relationships. When compared with males, females are found to have high abilities in this area. Same sex relationships were found to be important well into late adolescence (college).

Academic Achievement

The review of the literature tended to agree that there was a variety of factors which could affect academic performance. These included intellective factors such as, high school grades, high school curriculum, aptitude/achievement test scores, as well as non-intellective factors, such as, self-discipline, interpersonal relationships, self-concept, motivation, aspirations. For example, Hart and Keller (November 1980) found that when giving self-reported reasons for poor academic performance of freshmen, women more often reported matters pertaining to the instructional process, curriculum and factors related to academic stamina and self-confidence. Braddock and Dawkins' study (Summer 1981) of black high school graduates attending traditionally white institutions and traditionally black

¹Heath, Growing Up in College: Liberal Education and Maturity, p. 4.
institutions revealed that among the intellective criteria considered, high school grades seemed to be more important than aptitude test scores in influencing academic success. Study habits and social class background were the only factors among the nonintellective criteria to show significant effects.

**Choice of Major/Career**

The review of the literature bears out the fact that due to the number and complexity of occupations available to youths today, college students have more difficulty deciding upon a major. More than 50 per cent of students enrolled in college and universities change majors while in college. The literature also suggested that students with declared majors and with "congruent" majors tended to be more successful during their college tenure. Authorities agreed there was a great need to assist students in this decision-making process.

**Summary**

In summary, the literature revealed that there are distinct developmental tasks to be accomplished during the college years. The areas of interpersonal relationships, academic achievement and major/career choice are greatly affected by the accomplishment of these tasks. Freshmen are in the entry levels of the stage described as late adolescence—early adulthood. They are exploring in these
areas, searching for identity, relationships and success academically. Women specifically have abilities in the interpersonal area where the emphasis has traditionally been placed. There is a need to help them increase their self awareness and redefine their developmental goals and objectives in all of these areas.

Summary of Findings

A summary of the statistical findings is reported on the basis of the analysis of data for the hypotheses.

The Fisher t test for uncorrelated samples was used to determine the statistical significance of the difference between the means for hypotheses one and two. Hypothesis one was accepted and hypothesis two was rejected indicating that awareness of developmental status made no difference in academic performance but appeared to significantly influence interpersonal functioning.

The Pearson product moment coefficient of correlation was used to determine the degree of relationship between autonomy—developmental status, purpose—developmental status, interpersonal relationships—developmental status and academic performance for hypotheses three, four and five. Hypotheses three, four and five were accepted, indicating that there was no significant relationship between autonomy—developmental status, purpose—developmental status, interpersonal relationships—developmental status and academic performance.
For hypotheses six, seven and eight, the Pearson product moment coefficient of correlation was used to determine the degree of relationship between autonomy-developmental status, purpose-developmental status, interpersonal relationships-developmental status and interpersonal functioning. Hypotheses six and seven were accepted for the experimental group and rejected for the control group indicating a significant relationship between autonomy-developmental status, purpose-developmental status and interpersonal functioning for the control group and a non-significant relationship for the experimental group. Hypothesis eight was rejected for the experimental and the control groups indicating a significant relationship between interpersonal relationships-developmental status and interpersonal functioning.

The Chi-Square test of significance and the Fisher exact probability test were applied to hypothesis nine to determine the difference in significance of curriculum changes made by the experimental group and the control group and the difference in the direction of curriculum adjustment made by subjects in the experimental and control groups. Hypothesis nine was accepted indicating no significant difference in the number of curriculum changes for the experimental and control groups.

A summary of the descriptive findings is reported on the basis of the analysis of data for the profiles.
The Academic Profile included the combined verbal and mathematics scores on the SAT and the grade point averages; the expectancy table for freshman grades and the mean combined SAT scores and GPAs for the experimental and control groups as shown in Tables 11, 15 and 16. The mean SAT score for the combined sample group was 787. Nearly fifty per cent (48.3 per cent) of the combined groups subjects scored at or above the national averages, 13.0 per cent of those scored 1,000 or above. The mean GPA for the combined sample group was 2.48. Three fourths of the subjects (74.9 per cent) obtained a GPA of 2.00 or above at the end of the treatment period; nearly one-third (32.7 per cent) of them had GPAs of 3.00 and above. For students who scored between 800 and 899 on the SAT the chances are the highest (65 per cent) that they would obtain a GPA between 2.00 and 2.99. A statistically significant relationship at the .01 level was found between SAT scores and GPA.

The Developmental Profile was derived from the number of developmental tasks completed by the subjects in each developmental task on the SDTI. The subjects in both the experimental and the control groups were found to have completed the highest number of developmental tasks in the area of Interpersonal Relationships (Task 3).

In the Curricula Choice Profile, post-treatment data showed the highest number of subjects in both the experimental
and the control groups choosing science curricula, the second highest choosing non-science curricula and the lowest being undecided in their choice of curricula. The largest per cent change occurred among the undecided subjects. There was a decrease of 57.0 per cent in subjects who were undecided about their curricula choice in the experimental group and an increase of 80.0 per cent for subjects in the control group.

The Interpersonal Functioning Profile was derived from scores obtained by the subjects on the AQIR. The mean score was 58 for the experimental group and 50 for the control group. For the combined group (N=116), a little more than one-half (50.9 per cent) of the subjects were found to score between the mean and two standard deviations or more above the mean. The largest number in a single category (35.3 per cent) were found to score one standard deviation below the mean.

Conclusions

The findings of this study seem to warrant the following conclusions:

1. College females who are aware of their developmental status are very likely to function interpersonally at a higher level than those who are not aware. This awareness, however, is not likely to be reflected in their academic performance.

2. Neither autonomy, purpose nor interpersonal relationships-developmental status were predictors of academic performance.
3. There was a significant relationship between autonomy, purpose and interpersonal relationships—developmental status and interpersonal functioning for the control group subjects but only interpersonal relationship—developmental status was significantly related to interpersonal functioning for the experimental group subjects.

4. Neither the frequency nor the direction of curricular adjustment was significantly influenced by awareness of developmental status of the freshman college females in this study.

5. Of the variables considered in this study relative to the student profile, only combined SAT scores demonstrated the potential to be used as a predictor of academic performance.

Implications

The following implications seem to be justified in the conclusions drawn from this study:

1. That a significant relationship was found between autonomy—developmental status, purpose—developmental status and interpersonal functioning for the control group and not for the experimental group might suggest that differences in the size of the two groups may have had some effect upon the results obtained.

2. That awareness of developmental status might need to be considered concurrently with some other variable in order for it to have a significant effect upon academic performance.

Recommendations

The following recommendations are made based upon the findings and implications.

1. Since this study considered the variables two at a time, using correlation, that another study should consider groups of variables at simultaneously regression in order to increase the predictive efficiency.

2. That the developmental and interpersonal functioning profiles be continued with future groups of freshmen
in order to collect additional data as a basis for continuing research.
APPENDICES
Appendix A

Data Chart Form
<table>
<thead>
<tr>
<th>Subject</th>
<th>SAT V</th>
<th>SAT M</th>
<th>GPA</th>
<th>Intended Major 1st</th>
<th>Intended Major 2nd</th>
<th>Career Choice 1st</th>
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<th>Strong Campbell</th>
<th>AQIR</th>
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Abbreviations (SCII): Art. = Artistic  
Con. = Conventional  
Ent. = Enterprising  
Inv. = Investigative  
Real. = Realistic  
Soc. = Social
## DATAMART

### EXPERIMENTAL CHART

(N = 53)

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<tr>
<th>Subject</th>
<th>SAT</th>
<th>GPA</th>
<th>Intended Major</th>
<th>Career Choice</th>
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- **SAT**: SAT scores are shown in the V (verbal) and M (math) columns.
- **GPA**: Grade point averages are shown in the 1st and 2nd columns for each subject.
- **Intended Major**: Majors listed include Computer Science, Biology, and others.
- **Career Choice**: Career choices include Social, Computer, Ent., and others.
- **Strong Campbell**: Strong Campbell scores are shown in the AQIR and SDTI columns.
- **AQIR** and **SDTI**: These columns likely represent other standardized test scores or assessments.
### DATA CHART
#### EXPERIMENTAL
(N = 53)

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Abbreviations (SCII):  
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Ent. = Enterprising  
Inv. = Investigative  
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| Mean    | 77821 | 2.35    | 2.51    |                   |                   |                   |                   | 50             | 26.65| 28.29|
| S.D.    |       | .87     | .78     |                   |                   |                   |                   | 12.23          | 4.76 | 7.44 |
|         |       |         |         |                   |                   |                   |                   | 5.21           |      |      |
Appendix B

Correspondence
MEMORANDUM

June 3, 1982

TO: Dr. Carmen Jordan-Cox
    Dr. Joy O'Shields

FROM: Peggy White

RE: Dissertation Proposal.

Attached is a preliminary draft of the research study I plan to present for approval as a dissertation proposal to the Department of Psychological Services at Atlanta University. The review of the literature is incomplete and is therefore not included. The proposal will be formally presented sometime during the summer session.

As I previously indicated to you, the study will involve use of the Student Developmental Task Inventory. I would appreciate having your permission to do the study utilizing the departmental resources during the 1982-83 school year, provided it is approved by the A. U. Department of Psychological Services.

Peggy

I've reviewed this and made a few comments/suggestions you may or may not wish to consider: The project sounds interesting! Hopefully, it will tie in with some of our plans for 82-83 -- Joy can tell you more about these. You may also want to confer with Roger [name redacted] as you undertake this study. He has done some research that may be helpful. Keep me posted as you proceed. If you'd like, I'd be happy to review the chapters as you go along.
October 19, 1982

Dear Freshman:

Your participation is solicited and needed in a research project to be conducted by me during the 1982-83 academic year for completion of a doctoral degree in Guidance and Counseling at Atlanta University. This research is also being made possible through the cooperation of Spelman's Division of Student Life/Office for Life Planning Programs.

The purpose of this meeting is to ask you to participate in the research project. Participation will mainly involve completion of some forms and an inventory. It will also require your permission for me to have access to your grades following the first and second semesters. Some of you will be asked to participate in some activities at a later date. Activities will yield Freshman Orientation credit. Most of this will be done during the second semester.

All information used in the research will be examined on a group basis and all activities will be conducted or supervised by me. Confidentiality and anonymity will be maintained by converting all participants' names to code numbers.

It is expected that participation will be enjoyable and beneficial to you. It is also expected that the results of this study will be beneficial to the college and to future Spelman students.

Please indicate your willingness to be a part of this research project by completing and signing your name to the attached statements.

Sincerely,

Peggy L. White
Acting Coordinator
Advising and Freshman Studies
1930 Honeysuckle Lane, S. W.#26
Atlanta, Georgia 30311
December 3, 1982

Office of the Publisher
Butterick Publishing Company
Division of the American Can Company
P. O. Box 1914
Altoona, Pennsylvania 16603

Re: Use of Questionnaire in Research Project

Dear Sir:

I am a counselor by profession at Spelman College, Atlanta, Georgia, and am currently enrolled as a doctoral student at Atlanta University, Atlanta, Georgia. I am presently working on a dissertation proposal for a research project to be conducted during the 1982-83 academic year.

The purpose of this letter is to request permission from you to use a modified version of the Attitude Questionnaire #10--Adolescent Love and Dating, Dating: Part 2 in my research project. A copy of the questionnaire to which I am referring is enclosed.

The questionnaire will be adapted for use in the study with a college freshman population mainly by changing the questions to statements, relating the statements to college situations, changing the mode of response to a frequency pattern, and in some instances changing the wording. In addition, other items will be added to the questionnaire in its final form and a scoring procedure will be devised.

If you need additional information on the project, I will be pleased to supply it. My advisor's name and address are Dr. W. Cobe Williams, P. O. Box 472, Atlanta University, Atlanta, Georgia 30314.

I would appreciate very much hearing from you as soon as possible regarding this request. Thank you in advance for this consideration.

Yours truly,

Peggy L. White

Enclosure
Statement of Participation

I agree to participate in the research project to be conducted by Ms. Peggy White during the 1982-83 academic year. I understand that participation will involve the following:

1. Completion of a form and an inventory.
2. My permission to release first and second semester grades to her.

Date ____________________________ Signature ____________________________

Dormitory and P. O. Box
or Commuter Address

RELEASE OF RECORDS

Name ____________________________ Student Number ____________________________

Please release a copy of my first and second semester grades for 1982-83 to Ms. Peggy White, Rockefeller 112, Spelman College (name and address of person to receive records) for the following reason: for a research project

Date ____________________________ Signature ____________________________
Appendix C

Treatment Details
PROCEDURAL STEPS FOR INTERPRETATION
SESSION FOR SDTI

A. Guide students through "Get Acquainted Activity" and "Interaction Promoting Activity."

B. Explain the purpose of the inventory to the students. - Steps 1 and 2 of Instructions to Subjects.

C. Guide students in the interpretation of the results. - Steps 3, 4 and 5.

D. Guide students in using the Developmental Objective Worksheet to write goals, objectives and an action plan. - Step 6.
I. Establishing Rapport

A. Get Acquainted Activity

(Counselor will introduce himself/herself and tell purpose of session.)

"My name is ______________________ and I am a graduate student in Guidance and Counseling at Atlanta University. My home is ______________________. This morning I will be assisting you in interpreting the results and using the information from the Student Developmental Task Inventory which was administered to you last semester by the staff of the Office for Life Planning Programs. As you know, this is also one part of the research project which is being conducted by Ms. White.

Before we begin the interpretation and goal setting portion of the session, let's take a few minutes to introduce ourselves and to get better acquainted. Since I have already introduced myself, I would like for each of you to stand, tell your name, home city and state and major."

B. Interaction Promoting Activity

"This next activity will help us to get better acquainted. You will divide up into three groups of five each and choose a leader. (1) Please count off by threes. All one's, all two's and all three's will now form a small group and choose a leader. (2) In just a minute each member of the group will take one minute to talk about herself by sharing information about experiences that have influenced your awareness and goal setting. The group will then decide upon the commonalities in experiences and the leader will share them with the larger group when you come back together. (3) I will begin by sharing with you the main experiences that have influenced my goal setting to this point."

(Pass out sheet to the leader of each group with list of questions on it.)

"Please begin the exercise."

Questions to which students will respond are:

1. What person or experience had the greatest influence upon your decision to come to college?
2. What has been the greatest adjustment you have had to make from high school to college?

3. Name one thing you have learned or become more aware about yourself since coming to college.

4. Name one thing you have learned or become aware about others since coming to college.

II. Instructions to Subjects

The results of the Student Developmental Task Inventory will be interpreted to the subjects in small groups of fifteen.

1. (Subjects will be given the second answer sheet for the SDTI-2, and the Student Developmental Task Inventory booklet.)

2. Subjects will be told: "The information which you have before you is the results of the Student Developmental Task Inventory, also referred to as SDTI, which you took back in September, 1982. In a few moments you will be given a Data Sheet which will assist you in understanding your results.

The primary purpose of the Student Developmental Task Inventory is to assess the personal growth and development of individual college students. It deals with normal behavior and is based upon developmental theory. Developmental tasks are those experiences which are considered essential to the full development of the individual. They represent a way of organizing human development into understandable patterns which can be used to aid you to assume more responsibility for and control over your growth and development.

The total score for each developmental task was obtained by counting the number of darkened marks which fell within the circle for each subtask and adding them together. These represent the behaviors which you have already achieved according to your responses to the items on the Inventory. The darkened marks which fell outside of the circle represent those behaviors which have not yet been achieved or accomplished by you.
The items to which you responded in the SDTI represent sample behaviors of the developmental tasks which college students of your age group are usually found to achieve while in college. The developmental subtasks are described on the back of the Data Sheet. You will be asked to read the descriptions in order to better understand the types of experiences that the developmental tasks include.

In this session you will be assisted to see what behaviors you have already acquired in the three developmental task and nine subtask areas, to use the information to better understand yourself, and to use the information to set goals, objectives and a plan of action for intentional growth for yourself.

3. (Students will be given the SDTI-2 Data Sheet and instructed as follows): "Please read the introductory paragraph of the Data Sheet and follow the instructions for using the information. The first three steps relate to the scoring of the inventory which has already been done for you in order to expedite time. However, you should read those steps in order to understand the process before going on to Step No. 4. If you have any questions let me know. Please raise your head when you have completed the Data Sheet."

4. Students will be assisted by the counselors to formulate goals and objectives to include in a contract. Students will be told: "Using the information which you have written on the Data Sheet, we will look at the behaviors which you have not yet accomplished. I will assist you in using the information that you wrote under Step No. 6 on the Data Sheet to write short-term goals and objectives and a plan of action for achieving them."

5. "First, did you have any questions or comments about any of the items to which you responded on the Inventory? Remember that these were just sample behaviors that can be achieved for each subtask.

Now let's look at the subtask on which you chose to work and the behaviors you have not yet accomplished which are represented by the darkened marks outside of the circle on the answer sheet. You will need to refer to the
booklet for each number to see what the behavior is. Are there any questions about any of these?"

6. (Each subject is given a Developmental Objective Worksheet.) The subject is told: "Using the information from your Data Sheet you should now write a goal, objectives and your plans for accomplishing the objectives on the Developmental Objective Worksheet. The goal indicates what is to be accomplished, keeping in mind short-range goals as related to your long-range goal. The objectives are steps which lead to the accomplishment of the goal. The plans for accomplishing the objectives are the specific procedures and/or activities to be used in order to accomplish the objectives. The date objective(s) will be accomplished maybe sometime this semester or next year, but should be specified. The date to meet to evaluate the progress in accomplishing the objective will be agreed upon but should be some time this semester.

An example of goal setting is:

1) Goal--To exhibit leadership skill.

2) Objectives--To become a member of two clubs or campus organizations and attend all meetings and functions for one month. To assume responsibility for heading a committee in one club and complete the assigned task by the deadline. To complete a workshop on leadership skills and be able to identify group member roles.

3) Plans for accomplishing objectives:
   a) Will join the campus NAACP and the Biology Club.
   
   b) Will volunteer to head a committee in either club and complete the committee assignment.
   
   c) Will attend the Leadership Training Workshop sponsored by the Life Planning Office.

I will discuss your Developmental Objective Worksheet with you and both of us will sign it.
Appendix D

Training Procedure for Graduate Students
OUTLINE

Training Activities for Graduate Student Counselors

I. Developmental Task Approach
   A. Philosophical Base - Havighurst, et al.
   B. Instrument and Author's Intent

II. Division of Student Life's Plan

III. Introduce Counselors to the Treatment for this Study
   A. Purpose of Study
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Developmental Task Approach

Philosophical Base

The concept of developmental task is found in developmental theory and is used to describe human development. Basic principles of human development stress that development is continuous (ongoing); it is cumulative (builds); and it moves from simple to complex behavior. This principle of progressing on a continuum from simple to complex learning is also encompassed in the developmental task concept.

Robert J. Havighurst was defined a developmental task as "... a task which arises at or about a certain period in the life of an individual, successful achievement of which leads to happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by society and difficulty with later tasks."¹ A variety of definitions and uses of the concept have been made by theorists in describing the growth process of individuals. Joseph Zaccaria made a content analysis of major developmental task formulations which yielded a cluster of common elements descriptive of developmental tasks and their role in human development. These are represented in the following statements which can be used for our purposes of orientation.

1. Individual growth and development is continuous.
2. Individual growth can be divided into periods of life stages for descriptive purposes.
3. Individuals in each life stage can be characterized by certain general characteristics that they have in common.
4. Most individuals in a given culture pass through similar developmental stages.
5. The society makes certain demands upon individuals.
6. These demands are relatively uniform for all members of the society.
7. The demands differ from stage to stage as the individual goes through the developmental stage.
8. Developmental crises occur when the individual perceives the demand to alter his present behavior and master new learnings.

¹Havighurst, Human Development and Education, p. 2.
9. In meeting and mastering developmental crises, the individual moves from one developmental stage of maturity to another developmental stage of maturity.

10. The task appears in its present form at one stage.

11. Preparation for meeting the developmental crises or developmental tasks occur in the life stage prior to the stage in which it must be mastered.

12. The developmental task or crisis may arise again during a later phase in somewhat different form.

13. The crisis or task must be mastered before the individual can successfully move on to a subsequent developmental stage.

14. Meeting the crisis successfully by learning the required task leads to societal approval, happiness, and success with later crises and their correlative tasks.

15. Failing in meeting a task or crisis leads to disapproval by society.¹

The traditional college-age student is described as being in the late adolescent and early adulthood stages of development. Some of the specific developmental tasks which have been derived by theorists to describe these various stages of development are included below.

Erikson's eight stages of man was one of the earliest stage sequences. It describes development as requiring the individual to face a series of psychosocial "crises" as a person moves from one stage to another. The term "crisis" is used to describe a necessary turning point, a crucial moment when development must move one way or another, marshalling resources of growth, recovery and further differentiation. The individual at the adolescent stage of development is described as experiencing an identity crisis and the young adult an intimacy crisis.²


²Erikson, Identity: Youth and Crisis, p. 16.
The seven psychosocial tasks which Erikson sees as a part of the life cycle are broader than a developmental task. The central task of adolescence, achieving identity, contains the following developmental tasks: learning a masculine role, accepting one's body, achieving emotional independence from parents and other adults, selecting and preparing for an occupation, and developing a scale of values and an ethical system by which to live.¹ Havighurst, who has made a substantial contribution to developmental theory through his concept of developmental tasks, identifies ten tasks for the stage of adolescence. These include achieving new and mature relations with peers, emotional independence of parents and other adults, socially responsible behavior; accepting one's physique and using the body effectively; selecting and preparing for an occupation; developing intellectual skills and concepts necessary for civic competence; preparing for marriage and family life; and acquiring a set of values and an ethical system as a guide to behavior. For the stage of early adulthood, between 18 and 30, the tasks to be accomplished are selecting a mate, learning to live with a marriage partner, starting a family, rearing children, managing a home, getting started in an occupation, taking on civic responsibility and finding a congenial social group.²

The college student is represented in Blocher's Exploration Stage. This stage begins in mid-adolescence and moves the individual through later adolescence (ages 15 to 19) and early adulthood (ages 20 to 20). Developmental tasks of later adolescence include establishing identity as a worker (career development); achieving personal friendships through individualized relationships; achieving emotional autonomy and learning to produce in work situations. The young adult must develop intimacy (the capacity to commit oneself to concrete affiliations and partnerships and the ethical strength to abide by such commitments); commitment (to close interpersonal relationships, ideals and causes and to organizations and enterprises); and generativity (productivity and creativity, a concern to nurture and guide the next generation).³

Using a somewhat different approach, Heath seeks to provide a model of the maturing person for the student to grow up in college. He states that "to become a more mature person is to grow intellectually, to form guiding values, to become knowledgeable about oneself, and to develop social, interpersonal skills."⁴ The developmental process will

¹Erikson, Childhood and Society, p. 18.
³Blocher, Developmental Counseling, pp. 57-61.
involve becoming allocentric, becoming integrated, becoming more stable, and becoming more autonomous. 1

Arthur Chickering provides a most useful description of the development of the traditional college age (18-25) student. Calling this developmental stage "The Young Adult", he divided it into seven "vectors" of development which include achieving competence, managing emotions, becoming autonomous, establishing identity, freeing interpersonal relationships, clarifying purposes and developing integrity. 2

Coons discusses the resolution of adolescence in college in terms of five developmental tasks to be resolved by the college student during late adolescence and early adulthood. These are (a) the shift in the nature of one's relationship with one's parents; (b) the resolution of a personal-sexual identity; (c) the creation of a value system; (d) the development of the capacity for true human intimacy; and (e) the choice of a life's work. 3

In 1974 Prince, Miller and Winston introduced the Student Developmental Task Inventory (SDTI) as a tool for encouraging the growth and development of individual students. According to Winston, et al., "it combined the content of Chickering's vectors with Havighurst's conceptualization of developmental tasks to form a practical assessment instrument for use with individual students who wished to assess their present developmental status and then to assume responsibility for their own intentional growth and development." 4 The forerunner to the SDTI was a Developmental Task Scale for College Students created by Prince. A revised, second edition, of the Student Developmental Task Inventory (SDTI-2) was subsequently created by Winston, Miller and Prince in 1979. Contained in this edition are three tasks, each of which includes three sub-tasks. They are Developing Autonomy (Task 1): Emotional Autonomy (EA), Instrumental Autonomy (IA), Interdependence (ID); Developing Purpose (Task 2): Appropriate Educational Plans (EP), Mature Career Plans (CP), Mature Lifestyle Plans (LP); and Developing Mature Interpersonal Relationships

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1 Ibid., pp. 8-19.
(Task 2): Intimate Relationships with Opposite Sex (IRS), Mature Relationships with Peers (MRP), Tolerance (TOL).¹

Winston, et al. see a framework of developmental tasks as being useful because "a complete statement of such tasks (a) covers important human development, (b) gives a comprehensive and orderly view of the life cycle, and (c) is easily stated in terms of behaviors which make them useful in formulating behavioral objectives."²

¹Ibid., pp. 430-431.

Training Session

There were five graduate students who served as counselors and participated in the seventy-five minute training session. These students were graduate resident assistants in the residence halls and therefore already had some familiarity with the college, students and the Division of Student Life.

The counselors were given copies of the Philosophical Base of the Developmental Task Approach and information on scoring and interpreting the SDTI-2 to familiarize themselves with before coming to the session. Therefore, the main emphasis in the session was placed on administering the treatment. The training session proceeded as follows:

1. The counselors were told: "You have already been given copies of the Philosophical Base of the Developmental Task Approach and information on scoring and interpreting the SDTI-2 to help familiarize you with this inventory. Therefore, we will be using most of the time in this session to go through the procedure that you will follow with the students."

2. "As was indicated in your information, the purpose of the Student Developmental Task Inventory is to enable students to assess their developmental status in the three developmental task areas and to use this information to set goals and plan for their future development.

3. This will be the second year that the Division of Student Life/Office for Life Planning Programs at Spelman has administered the SDTI-2 to all freshmen. It is being used as one way to help students plan developmentally for their personal growth during their tenure at the college. It is part of the Division's Phase 4 Enrichment and Support Program which primarily emphasizes awareness the freshman year, exploration the sophomore year, formation the junior year and integration the senior year.

4. I am conducting this study to ascertain the developmental status of a randomly selected sample of the freshman class and to determine if there is a relationship between their developmental status and their academic performance, interpersonal functioning and curriculum adjustment.
Specifically, the purpose of the study is threefold:

a) To determine the influence, if any, of the awareness of developmental status on academic performance, interpersonal functioning and curriculum adjustment of the freshman women.

b) To determine the degree of relationship, if any, between developmental status, academic performance and interpersonal functioning among freshman women.

c) To identify and initiate a developmental profile for the selected group of Black freshman women.

Nine hypotheses will be tested.

An experimental group and a control group consisting of seventy-five women each will be compared. The treatment for the experimental group is the interpretation of the SDTI-2 which each of you will conduct with fifteen students in order to provide them with an awareness and understanding of their developmental status in the three developmental task areas. It is assumed that a knowledge (awareness) of their developmental status will have a positive impact on academic performance, interpersonal functioning, quality of decision making, and will generally assist in giving direction to their lives.

5. The counselors were given a packet containing
(a) Procedural Steps for Interpretation Session for SDTI, Rapport-Establishing Activities and Instructions to Subjects (see Appendix C); and copies of the Student Developmental Task Inventory booklet, the completed answer sheet for the SDTI-2 of one of the subjects, the SDTI-2 Data Sheet and a Developmental Objective Worksheet (see Appendix E).

The counselors were told: "Using the Procedural Steps as a guide we will go through the interpretation."

When the interpretation procedure was completed the counselors were given an SDTI-2 Answer Sheet and asked to go home and take the inventory themselves and review the process.
Appendix E

Instruments
STUDENT DEVELOPMENTAL TASK INVENTORY
Revised, Second Edition

Roger B. Winston, Jr., Ph.D.

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The Student Developmental Task Inventory (SDTI-2) is designed to collect information concerning young adult college students—their activities, feelings, attitudes and relationships. It is composed of statements shown to be typical of many college students. Its purpose is to help students learn more about themselves as developing adults.

Please respond to each statement honestly. Do not be concerned if there are statements about activities in which you do not participate, or about feelings which are not descriptive of you.

**DIRECTIONS**

1. Do not mark or write in this booklet. Mark all answers on the separate answer sheet provided. Other people will be using this booklet.

2. Write in the information requested at the top of the answer sheet (A through G). Leave H, I and J blank, unless instructed otherwise. Please print.

3. Read each statement and decide whether the statement is **TRUE** (usually true) of you, or **FALSE** (not usually true) of you. If true, completely darken the □; if false, completely darken the ◐. Be sure that the number of the statement corresponds to the number on the answer sheet. Use FIRM PRESSURE in recording answers, so that they show through the carbon.

4. If you wish to change an answer, do so by placing an X through the answer you wish to change and then draw a single line through the desired answer. Do not attempt to erase. [EXAMPLE: 141. □ ◐ Indicating you have changed your response from true to false.]

5. Respond to all statements. One or two of these statements may not be applicable to you. If this is the case, draw a single line through both the □ and the ◐. [EXAMPLE: 142. □ ◐ ]

6. Consider each statement carefully, but do not spend a great deal of time deliberating on any single statement. Some statements contain phrases such as “I can list,” “I know,” and “I have identified.” When these occur take a moment to actually list or name them in your mind before marking your response.

7. **MARRIED STUDENTS:** When responding to statements referring to “dating partner,” married students should mentally substitute “spouse” or “marriage partner” when considering their responses. When responding to statements which describe dating, married students should interpret them in terms of their social activities with their spouses.

8. Before beginning, make sure you have supplied all the information requested at the top of the answer sheet.
1. Within the past month I recall accepting criticism from another without getting upset.

2. Within the past month I have found myself worrying about unimportant matters which interfered with the things I wanted to do.

3. I meet most day-to-day problems and solve them without needing to turn to someone for help.

4. Recently I made a poor grade in class due to my own neglect or lack of prior planning.

5. While working in a group problem-solving situation, I have personally contributed to the solution by suggesting a way for the group to solve the problem.

6. I have been an active participant in an effort to promote racial understanding among others within the past six months.

7. I can list at least three reasons why I chose a college education over other types of education or immediate work.

8. I have met with an academic advisor at least three times a term thus far this academic year.

9. Within the past month I have visualized, from time to time, what it would be like to be employed in a particular occupation.

10. I have prepared my employment placement credentials and resume.

11. I have determined the extent to which material things like houses, cars, clothes and money are essential for my future happiness.

12. I have participated in cultural activities on a regular basis (several times a month).

13. I find it easy to talk informally with members of the opposite sex.

14. I get along quite well without a member of the opposite sex with whom to share any of my time.

15. I have listened attentively to a friend discuss a personal problem within the past month.

16. I always tell my friends how I feel when I am angry with them.

17. It is a waste of money to attempt to rehabilitate criminals and social deviants.

18. I have attended a program such as an international coffee hour, or a Black history program, or a Chicano art show, etc. to learn about ethnically, racially, and culturally different people.

19. At home I present my views and ideas in such a manner that it is clear that I have given them serious thought.

20. I feel guilty when I don’t obey my parents’ wishes.

21. I am satisfied with my ability to behave as a self-disciplined person.

22. Within the past six months I have undertaken either an independent study or service project on my own.

23. At least once in the past six months, I have been called upon by someone needing help to get a nonpaying job done and I agreed to help.

24. During the past year I have been involved in at least one civic project, or activity—cleanup campaign, United Fund, blood drive, Heart Fund, for example.

25. I know all the basic requirements for graduating with a degree in my academic major.

26. This year I have successfully completed, or am presently working on, a project specifically designed to improve my learning and study habits.

27. I can list at least three things to do and three things to avoid during a job interview.

28. I am a member of at least one club or organization that is specifically related to my chosen occupational field.

29. I have thoughtfully decided the extent and frequency I drink alcoholic beverages.

30. I can state clearly my plan for achieving the goals I have established for the next ten years.

31. I feel confident in my ability to establish a close, warm, loving relationship with a member of the opposite sex.

32. In the past month there has been an occasion on which I was unable to say the “right things” to a member of the opposite sex.

33. I have several close friendships with both men and women.

34. Recently I resumed a relationship with someone I had not seen for at least one year.

35. I feel uncomfortable when around people who are not as well educated as I.

36. I am usually able to get my friends to accept my point of view, or to do what I want, without their being aware of it.
37. In the past three months I have met my responsibilities to my parents to my own personal satisfaction.

38. Within the past six months I have told my parents both that I love them and also that they have made me angry.

39. I chose the place in which I now live.

40. I have worked for and earned my total living expenses over a period of at least three months.

41. I can name three personal skills which I have offered as assistance to others.

42. I voted in the last local/state/national election.

43. I have declared my academic major.

44. Within the past three months I have read at least one non-required publication related to my major field of study.

45. I have identified several occupations in which I could be successful.

46. I have formulated a clear plan for getting a job.

47. I have followed through on nearly all my plans made during the past year.

48. I have made a definite decision about the number of children I will have in my family.

49. I express tender feelings toward others without personal discomfort.

50. Within the past three months I have helped my dating partner achieve a personal goal which he/she established.

51. I can accept teasing from my friends without becoming upset.

52. I introduce myself to strangers at parties.

53. I do not date some people because they are beneath my social status.

54. I have set up standards which I feel most people should meet.

55. Once or more within the past six months I have asked my parents to solve a really important personal problem for me.

56. It embarrasses me to become emotional in front of others.

57. I make sure that regular maintenance (oil, filter, checkup, etc.) is performed on my car, motorcycle, etc.

58. I keep an accurate record of money I spend.

59. I have helped another person become involved in solving mutual problems at school or work within the past month.

60. I voted in the last student election or referendum.

61. I am satisfied with my decision concerning the selection of a college major (course of study).

62. This year I have participated in at least three campus activities, or programs, or organizations, although neither required nor directly related to an academic course.

63. I know at least five requirements necessary for the occupations I am thinking about entering.

64. I have sought out leisure time activities for the purpose of helping me obtain an indication of my career interests.

65. I feel as if I am just drifting along with life.

66. I often achieve to the limits of my ability.

67. I have established a close, warm, loving relationship with a member of the opposite sex.

68. I have continued a loving relationship for at least three months when my partner was not with me.

69. I can name at least five close friends my age of the opposite sex in whom I have no romantic interests.

70. It sometimes bothers me if my leisure time activities are different from those of my friends.

71. When considering officer candidates in organizations of which I am a member, I always prefer a man as president.

72. I sometimes use phrases or words such as "Blacks have rhythm," or "honkies," or "people on welfare are looking for a free ride."
73. The principal deciding factor in the last major decision I made was whether I would please or displease my parents.

74. I get very angry at some of the dumb things my parents do and say.

75. It is hard for me to work intently on something for more than a short time.

76. I initiated an activity in the past week designed to help me achieve something important in my life.

77. I attended a community meeting recently, for example, neighborhood, residence hall, or college.

78. I have made a positive contribution to my community (campus, hometown, etc.) within the past three months.

79. I participate in campus activities which are neither required for, nor related to, my academic program.

80. I have decided whether or not I will seek admission to a graduate or professional school.

81. I know where to find out what the prospects for employment are in any occupational field.

82. I am getting practical experience while in college through part-time work, or summer job, or internship, or similar employment related to my educational goals.

83. I have carefully thought through and decided the extent to which I am involved in regular organized religious activities.

84. I have clearly decided upon the place of marriage, children, and a career in my future.

85. Over the past year I have dated a member of the opposite sex three times or more a month.

86. A dating partner and I have discussed the limits to be placed on our physical relationship within the past six months.

87. In the past few months I have spent time with someone because I knew that he or she was lonely and needed company.

88. I frequently attend and/or participate in activities, not because I particularly enjoy them, but because my friends wish to do so.

89. It is necessary that others accept my point of view.

90. I think most women tend to respond to situations emotionally, while men respond by thinking.

91. I treat my parents as well as I should.

92. I need to feel sure of the outcome before attempting something new or different.

93. I have successfully completed an extended trip on my own.

94. I followed a systematic plan in making an important decision within the past thirty days.

95. I have joined with several people in achieving solution to a mutual problem within the past month.

96. I seldom bounce ideas off other people in order to obtain their views of my ideas.

97. I have a mature working relationship with at least one member of the academic community (faculty member, student affairs staff member, administrator).

98. I have developed a financial plan for achieving my educational goals.

99. Within the last month I have read an article or book that deals with some aspect of a career I am considering or have decided upon.

100. I can name at least two beginning-level work positions which would be open to me in business, industry, government, or education when I graduate.

101. I know what I will be doing a year from now.

102. I am actively involved in two or more different organized activities in addition to my academic studies.

103. I have successfully resolved major conflicts which have arisen in my dating relationship without destroying that relationship.

104. I have terminated a relationship with a member of the opposite sex without excessive hurt to either of us.

105. I make sure that I spend adequate time with my friends.

106. It is important to me that I meet the standards of behavior set by my friends.

107. There are some people I avoid because I dislike their religious views and/or practices.

108. I expect my dating partner to always meet my personal needs.
109. At least once within the past three months my parents and I have had a conversation of one hour or more covering topics unrelated to personal or family problems.

110. Within the past six months I have felt forced to do some things I didn’t want to do because of my parents.

111. I set up a daily plan or schedule in order to get done the things I need to do.

112. Most of the time I get bored and quit studying after working on an assignment for a short time.

113. I do not hesitate to seek help in dealing with the pressures of college life.

114. I have identified and can list at least three ways in which I can be an asset to the community.

115. I have acceptable alternatives to my present educational plans in mind.

116. I am working at continuously improving my learning and study habits.

117. I am acquainted with at least three persons who are actively involved in the kind of work I visualize for myself in the future.

118. I have asked relatives, faculty members, or other persons to describe kinds of positions available in the fields in which they are working.

119. I have made a decision about reserving time each week for physical activity and/or exercise.

120. I have made no definite plans as to what I will be doing after college.

121. My dating partner and I regularly involve each other in decisions as to how we will spend our time together.

122. I believe that my dating partner should develop friendships with other members of my sex.

123. Generally I am able to communicate my true feelings to others.

124. Other people determine what our friendships will be like.

125. I feel comfortable disagreeing with my parents on topics such as my sexual activity, or my career choice.

126. The primary thing that got my last major school project through to completion was the regular reassurance I received.

127. Within the past month I have completed not less than ninety per cent of the short-term projects I initiated.

128. I do not allow others to take advantage of me.

129. Within the past month I sought help with a personal problem.

130. I have been active on at least one school committee or in one school group within the past six months.

131. Within the past three months I have had a serious discussion with a faculty member concerning something of importance to me.

132. I am familiar with at least three college majors and their requirements in terms of required courses and their accompanying academic skills.

133. I have recently examined the current labor market demand for people with a degree in the career area(s) I am considering.

134. I have listed a number of my specific personal abilities and limitations which I can use as guidelines for narrowing the number of career areas I wish to explore.

135. I am currently involved in one or more activities which I have identified as being of help in determining what I will do with the rest of my life.

136. I have identified at least three people, other than my family, whom I am confident will be influential in my post-college future.

137. I have shared some of my private fears and doubts with my dating partner during the last month.

138. I consider having close relationships with members of the opposite sex to be an important part of my life pattern.

139. I resume relationships easily even after extended separations.

140. It is very important to me that I dress in similar fashion to my friends.

END OF INVENTORY
Dear Student:

The information in this form is being collected as part of a continuing study of higher education conducted jointly by the American Council on Education and the University of California at Los Angeles. Your voluntary participation in this research is being solicited in order to achieve a better understanding of how students are affected by their college experiences. Detailed information on the goals and design of this research program are furnished in research reports available from the Laboratory for Research on Higher Education at UCLA. Identifying information has been requested in order to make subsequent mail follow-up studies possible. Your response will be held in the strictest professional confidence.

Sincerely,

Alexander W. Astin, Director

Cooperative Institutional Research Program

1. Have you had, or do you feel that you will need, any special tutoring or remedial work in any of the following subjects?

- English
- Social studies
- Reading
- Science
- Mathematics
- Foreign language

2. Have you completed the following subjects in high school?

- English
- Science
- Mathematics
- Foreign language

3. If you have completed the following subjects in high school, please indicate the grade level you have completed:

- English
- Science
- Mathematics
- Foreign language

4. Did you graduate from high school in this year?

- Yes
- No

5. Where did you get the money to pay for college this year? (Write in actual dollar amounts; write "0" if none)

- Grants and scholarships
- All loans
- Work or savings
- Parents and/or spouse

6a. How many persons are currently dependent on your parents for support (include yourself and your parents, if applicable)?

- One
- Two
- Three
- Four
- Five
- Six or more

6b. How many of these dependents other than yourself are currently attending college?

- None
- One
- Two
- Three or more

7. What was your average grade in high school?

- A or A+  
- B  
- C
- D  
- F

8. Where did you rank academically in your high school graduating class?

- Top 20%
- Second 20%
- Middle 40%
- Lowest 40%

9. Are you enrolled (or enrolling) as a:

- Full-time student
- Part-time student

10. Prior to this term, have you ever taken courses for credit at this institution?

- Yes
- No

11. Since leaving high school, have you ever taken courses at any other institution?

- Yes
- No

12. How many miles is this college from your permanent home?

- 5 or less
- 6-10
- 11-50
- More than 50

13. Where do you plan to live during the fall term? If you had a choice, where would you have preferred to live?

- With parents or relatives
- Other private home, apt. or rm.
- College dormitory
- Fraternity or sorority house
- Other campus student housing
- Other

14. Is this college your...

- First choice
- Less than third
- Second choice
- Third choice

15. To how many colleges other than this one did you apply for admission this year?

- None
- One
- Two
- Three
- Four
- Five
- Six or more

16. How many other acceptances did you receive this year?

- None
- One
- Two
- Three
- Four
- Five
- Six or more

17. Have you had, or do you feel that you will need, any special tutoring or remedial work in any of the following subjects?

- English
- Social studies
- Reading
- Science
- Mathematics
- Foreign language

18. If you applied to other colleges, please indicate:

- Admitted
- Rejected
- Waitlisted

19. If you applied to any other college, please indicate:

- Admitted
- Rejected
- Waitlisted

20. Please check that your pencil markings are not completely darkening the circles. Do not completely darken the circles. Do not mark more than one circle for each question. Thank you.
23. For the activities below, indicate which ones you did during the past year. If you engaged in an activity frequently, mark \( \Box \); if you engaged in an activity one or more times, but not frequently, mark \( \checkmark \) (occasionally). Mark \( \ast \) (not at all) if you have not performed the activity during the past year.

Mark one for each item:

- Wrote a computer program
- Played a musical instrument
- Attended a religious service
- Smoked cigarettes
- Took vitamins
- Participated in organized demonstrations
- Took a tranquilizing pill
- Wore glasses or contact lenses
- Took a course on TV
- Took a computer-assisted course
- Attended a public recital or concert
- Took sleeping pills
- Jogged
- Stayed up all night
- Drank beer
- Worked in a local, state, or national political campaign

24. Are you a U.S. citizen? **Yes** **No**

25. Are you a twin? **No**

26. Are you: (Mark one)

- Not presently married
- Married, living with spouse
- Married, not living with spouse

27. Please answer the following as they apply to the time when you were growing up.

Mark one for each item:

- My parents lived together
- My father worked full-time
- My mother worked full-time
- My mother held a part-time job
- We spoke English in our home

28. What is the highest academic degree that you intend to obtain?

Mark one in each column:

- None
- Associate (A.A. or equivalent)
- Bachelor’s degree (B.A., B.S., etc.)
- Master’s degree (M.A., M.S., etc.)
- Ph.D. or Ed.D.
- M.D., D.O., D.D.S., or D.V.M.
- L.L.B. or J.D. (Law)
- B.D. or M.Div. (Divinity)
- Other

29. In deciding to go to college, how important to you was each of the following reasons?

Mark one answer for each possible reason:

- My parents wanted me to go
- I could not find a job
- I wanted to get away from home
- To be able to get a better job
- To gain a general education and appreciation of ideas
- To improve my reading and study skills
- There was nothing better to do
- To make me a more cultured person
- To be able to make more money
- To learn more about things that interest me
- To meet new and interesting people
- To prepare myself for graduate or professional school

30. Do you have any concern about your ability to finance your college education? (Mark one)

- None (I am confident that I will have sufficient funds)
- Some concern (but I will probably have enough funds)
- Major concern (not sure I will have enough funds to complete college)

31. How would you characterize your political views? (Mark one)

- Far left
- Liberal
- Middle-of-the-road
- Conservative
- Far right

32. What is your best estimate of your parents’ total income last year? Consider annual income from all sources before taxes. (Mark one)

- Less than $4,000
- $4,000 to $9,999
- $10,000 to $19,999
- $20,000 to $29,999
- $30,000 to $39,999
- $40,000 to $49,999
- $50,000 to $99,999
- $100,000 or more

33. What is the highest level of formal education obtained by your parents?

Mark one in each column:

- Father
- Mother

- Grammar school or less
- Some high school
- College degree
- Some graduate school
- Graduate degree

- General
- High school graduate
- Postsecondary school other than college
- Some college
- College degree
- Some graduate school
- Graduate degree
35. Below are some reasons that might have influenced your decision to attend this particular college. How important was each reason in your decision to come here? (Mark one answer for each possible reason)

- My relatives wanted me to come here
- My teacher advised me
- This college has a very good academic reputation
- I was offered financial assistance
- I was not accepted anywhere else
- Someone who had been here before advised me to go
- This college offers special educational programs
- This college has low tuition
- My guidance counselor advised me
- I wanted to live at home
- A friend suggested attending
- A college representative recruited me

36. Current religious preference:

- Protestant
- Roman Catholic
- Jewish
- Other
- None

BE SURE TO ANSWER QUESTIONS 37 AND 38.

37. During high school, how many years did you study each of the following subjects? (Mark one for each item)

- English
- Mathematics
- Foreign language
- Physical science
- Biological science
- Civics
- Social studies

38a. Do you have a disability?

- Yes
- No

38b. If yes, what is your disability?

- Hearing
- Speech
- Visual
- Health-related
- Other

38c. Does your disability require architectural accommodations (wheelchair ramps, elevators, etc.)?

- Yes
- No

39. Mark one in each row:

- The Federal government is not doing enough to protect the consumer from faulty goods and services
- The Federal government is not doing enough to control environmental pollution
- The Federal government should do more to discourage energy consumption
- Federal military spending should be increased
- There is too much concern in the courts for the rights of criminals
- Inflation is our biggest domestic problem
- The death penalty should be abolished
- A national health care plan is needed to cover everybody's medical costs
- Abortion should be legalized
- Grading in the high schools has become too easy
- The activities of married women are best confined to the home and family
- A couple should live together for some time before deciding to get married
- Parents should be discouraged from having large families
- Divorce laws should be liberalized
- If two people really like each other, it's all right for them to have sex even if they've known each other for only a very short time
- Women should receive the same salary and opportunities for advancement as men in comparable positions
- Wealthy people should pay a larger share of taxes than they do now
- Marijuana should be legalized
- Busing is O.K. if it helps to achieve racial balance in the schools
- It is important to have laws prohibiting homosexual relationships
- College officials have the right to regulate student behavior off campus
- Faculty promotions should be based in part on student evaluations
- College grades should be abolished
- Student publications should be cleared by college officials
- College officials have the right to ban persons with extreme views from speaking on campus
- Students from disadvantaged social backgrounds should be given preferential treatment in college admissions
- All college graduates should be able to demonstrate some minimal competency in written English and mathematics

(I) Disagree Strongly
(2) Disagree Somewhat
(3) Agree Somewhat
(4) Agree Strongly

(5) 0 1 2 3 4 5 or more
Below is a list of different undergraduate major fields grouped into general categories. Mark only one circle to indicate your probable field of study.

**PHYSICAL SCIENCE**
- Astronomy
- Atmospheric Science (incl. Meteorology)
- Chemistry
- Earth Science
- Marine Science (incl. Oceanography)
- Mathematics
- Physics
- Statistics
- Other Physical Science

**SOCIAL SCIENCE**
- Anthropology
- Economics
- Geography
- Political Science (gov't., international relations)
- Psychology
- Social Work
- Sociology
- Women's Studies
- Other Social Science

**TECHNICAL**
- Architecture or Urban Planning
- Home Economics
- Health Technology (medical, dental, laboratory)
- Library or Archival Science
- Nursing
- Pharmacy
- Predental, Premedicine, Preveterinary
- Therapy (occupational, physical, speech)
- Other Professional
- Other Biological Science

**BUSINESS**
- Accounting
- Business Admin. (general), Finance
- Management
- Secretarial Studies
- Other Business

**EDUCATION**
- Business Education
- Elementary Education
- Music or Art Education
- Physical Education or Recreation
- Secondary Education
- Special Education
- Other Education

**ENGINEERING**
- Geophysical Eng.
- Astronautical Eng.
- Chemical Engineering
- Electrical or Electronic Engineering
- Industrial Engineering
- Mechanical Engineering
- Other Engineering

41. Indicate the importance to you personally of each of the following: (Mark one for each item)

<table>
<thead>
<tr>
<th>Item</th>
<th>Somewhat Important</th>
<th>Very Important</th>
<th>Essential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Becoming accomplished in one of the performing arts (acting, dancing, etc.)</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Becoming an authority in my field</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Obtaining recognition from my colleagues for contributions to my special field</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Influencing the political structure</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Influencing social values</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Raising a family</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Having administrative responsibility for the work of others</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Being very well off financially</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Helping others who are in difficulty</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Making a theoretical contribution to science</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Writing original works (poems, novels, short stories, etc.)</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Creating artistic work (painting, sculpture, decorating, etc.)</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Being successful in a business of my own</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Becoming involved in programs to clean up the environment</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Developing a meaningful philosophy of life</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Participating in a community action program</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Helping to promote racial understanding</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
<tr>
<td>Keeping up to date with political affairs</td>
<td>E</td>
<td>V</td>
<td>N</td>
</tr>
</tbody>
</table>

42. What is your best guess as to the chances that you will: (Mark one for each item)

<table>
<thead>
<tr>
<th>Item</th>
<th>No Chance</th>
<th>Very Little Chance</th>
<th>Some Chance</th>
<th>Very Good Chance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change major field?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Change career choice?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Fail one or more courses?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Graduate with honors?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Be elected to a student office?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Get a job to help pay for college expenses?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Work full time while attending college?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Join a social fraternity, sorority, or club?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Live in a coeducational dorm?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Play varsity football or basketball?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Be elected to an academic honor society?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Make at least a &quot;B&quot; average?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Need extra time to complete your degree requirements?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Get tutoring help in specific courses?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Have to work at an outside job during college?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Seek vocational counseling?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Seek individual counseling on personal problems?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Get a bachelor's degree (B.A., B.S., etc.)?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Participate in student protests or demonstrations?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Drop out of this college temporarily (exclude transferring)?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Drop out permanently (exclude transferring)?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Transfer to another college before graduating?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Be satisfied with your college?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Find a job after college in the field for which you were trained?</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Get married while in college? (skip if married)</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Get married within a year after college? (skip if married)</td>
<td>E</td>
<td>V</td>
<td>N</td>
<td></td>
</tr>
</tbody>
</table>

The Laboratory for Research on Higher Education at UCLA actively encourages the colleges that participate in this survey to conduct local studies of their student bodies. If these studies involve collecting follow-up data, it is necessary for the institution to know the students' ID numbers so that follow-up data can be linked with the data from this survey. If your college asks for a tape copy of the data and signs an agreement to use it only for research purposes, do we have your permission to include your ID number in such a tape? Yes [ ] No [ ]

The remaining circles are provided for items specifically designed by your college, rather than by the Laboratory for Research on Higher Education. If your college has chosen to use the circles, observe the supplemental directions given you.

43. [ ] 44. [ ] 45. [ ] 46. [ ] 47. [ ]

THANK YOU!
This inventory is used to help you understand your work interests in a general way, and to show you some kinds of work you might be comfortable in. The following pages list many jobs, activities, school subjects, and so forth, and you are asked to show your liking or disliking for each. Your answers will be compared with the answers given by people already working in a wide range of jobs, and your scores will show how similar your interests are to the interests of these people. But this is not a test of your abilities; it is an inventory of your interests. Your scores will be presented to you later, on a special sheet called a profile, with information on how to understand the scores.

Directions:
1. With this booklet, you should have a special answer sheet on which to mark your answers.
2. Please make no marks on this booklet; it will be used again by other people.
3. Use any soft, black, lead pencil (such as a No. 2) to make your marks on the answer sheet.
4. Fill in your name and other information on the answer sheet. Follow carefully the instructions for filling in your name.
5. Instructions for marking your answers are given on the next page of this booklet and also on the answer sheet.
6. Make a heavy, dark mark for each answer—not a cross or a check mark.
7. If you make a mistake or change your mind, erase carefully and thoroughly.
8. Your answer sheet will be processed by computer. Please keep it free from wrinkles or stray marks, so that it will be scored correctly.
9. Try to answer each question. Work quickly; first impressions usually give the best results with this inventory. Turn the page and begin.
Part I. Occupations

Many occupations are listed below. For each of them, show how you would feel about doing that kind of work.

Mark on the answer sheet in the space labeled “L” if you think you would like that kind of work.
Mark in the space labeled “I” if you are indifferent (that is, if you think you wouldn’t care one way or another).
Mark in the space labeled “D” if you think you would dislike that kind of work.

Don’t worry about whether you would be good at the job or about not being trained for it. Forget about how much money you could make or whether you could get ahead. Think only about whether you would like to do the work done in that job.

Work fast. Answer every one.

1 Actor/Actress
2 Advertising executive
3 Architect
4 Art museum director
5 Art teacher
6 Artist
7 Artist’s model
8 Astronomer
9 Athletic director
10 Auctioneer
11 Author of children’s books
12 Author of novels
13 Author of technical books
14 Auto mechanic
15 Auto racer
16 Auto sales
17 Bank teller
18 Beauty and haircare consultant
19 Biologist
20 Bookkeeper
21 Building contractor
22 Business teacher
23 Buyer of merchandise
24 Carpenter
25 Cartoonist
26 Cashier in bank
27 Chemist
28 Children’s clothes designer
29 Church worker
30 City or state employee
31 City planner
32 Civil engineer
33 College professor
34 Computer operator
35 Corporation lawyer
36 Costume designer
37 Courtroom stenographer
38 Criminal lawyer
39 Dancing teacher
40 Dental assistant
41 Dentist
42 Designer, electronic equipment
43 Dietitian
44 Draftsman
45 Dressmaker/Tailor
46 Editor
47 Electrical engineer
48 Electronics technician
49 Elementary school teacher
50 Employment manager
51 Factory manager
52 Farmer
53 Fashion model
54 Florist
55 Foreign correspondent
56 Foreign service officer
57 Free-lance writer
58 Governor of a state
59 High school teacher
60 Home economics teacher
61 Hospital records clerk
62 Housekeeper
63 Hotel manager
64 Illustrator
65 Income tax accountant
66 Interior decorator
67 Inventor
68 Jet pilot
69 Judge
70 Labor arbitrator
71 Laboratory technician
72 Landscape gardener
73 Librarian
74 Life insurance agent
75 Machine shop supervisor
76 Machinist
77 Manager, Chamber of Commerce
78 Manager, child care center
79 Manager, women’s style shop
80 Manufacturer
81 Mechanical engineer
82 Military officer
83 Minister, priest, or rabbi
84 Musician
85 Newspaper reporter
86 Nurse
87 Nurse’s aide/Orderly
88 Office clerk
89 Office manager
90 Opera singer
91 Orchestra conductor
92 Pharmacist
93 Photographer
94 Physician
95 Playground director
96 Poet
97 Police officer
98 Politician
99 Private secretary
100 Professional athlete
101 Professional dancer
102 Professional gambler
103 Psychologist
104 Public relations director
105 Rancher
106 Realtor
107 Receptionist
108 Retailer
109 Sales manager
110 School principal
111 Scientific illustrator
112 Scientific research worker
113 Sculptor
114 Secret service agent
115 Social worker
116 Specialty salesperson
117 Sports reporter
118 Statistician
119 Flight attendant
120 Stockbroker
121 Surgeon
122 Toolmaker
123 Traveling salesperson
124 Travel bureau manager
125 Typist
126 TV announcer
127 Vocational counselor
128 Waiter/Waitress
129 Wholesaler
130 X-Ray technician
131 YMCA/YWCA staff member
Part II. School Subjects

Show in the same way whether you are interested in these school subjects, even though you may not have studied them.

Mark "L" for Like.
Mark "I" for Indifferent (when you don't care one way or the other).
Mark "D" for Dislike.

Aircraft (32)
Algebra (33)
Arithmetic (34)
Ancient Languages (Latin, Sanskrit, etc.) (35)
Art (36)
Bible History (37)
Bookkeeping (38)
Botany (39)
Calculus (40)
Chemistry (41)
Civics (government) (42)
Dramatics (43)
Economics (44)
English Composition (45)
Geometry (46)
Home Economics (47)
Industrial Arts (48)
Journalism (49)
Literature (50)
Mathematics (51)
Mechanical Drawing (52)
Military Drill (53)
Modern Languages (French, German, etc.) (54)
Nature Study (55)
Pennmanship (56)
Philosophy (57)
Physical Education (58)
Physics (59)
Physiology (60)
Political Science (61)
Psychology (62)
Public Speaking (63)
Sociology (64)
Statistics (65)
Typewriting (66)
Zoology (67)

Part III. Activities

Show your interests in the same way as before. Give the first answer that comes to mind.

168 Making a speech
169 Doing research work
170 Repairing a clock
171 Cooking
172 Operating machinery
173 Writing reports
174 Discussing politics
175 Taping a sprained ankle
176 Adjusting a carburetor
177 Going to church
178 Heading a civic improvement program
179 Raising flowers and vegetables
180 Interviewing job applicants
181 Teaching children
182 Teaching adults
183 Meeting and directing people
184 Taking responsibility
185 Sewing
186 Making statistical charts
187 Operating office machines
188 Giving first aid assistance
189 Decorating a room with flowers
190 Interviewing prospects in selling
191 Drilling soldiers
192 Pursuing bandits in a sheriff's posse
193 Watching an open-heart operation
194 Checking typewritten material for errors
195 Repairing electrical wiring
196 Organizing cabinets and closets
197 Adjusting difficulties of others
198 Starting a conversation with a stranger
199 Cabinetmaking
200 Being a forest ranger
201 Bargaining ("swapping")
202 Looking at things in a clothing store
203 Buying merchandise for a store
204 Displaying merchandise in a store
205 Competitive activities
206 Regular hours for work
207 Continually changing activities
208 Interviewing clients
209 Arguments
210 Developing business systems
211 Doing your own laundry work
212 Saving money
213 Contributing to charities
214 Raising money for charity
215 Expressing judgments publicly, regardless of what others say
216 Climbing along the edge of a steep cliff
217 Living in the city
218 Discussing the purpose of life

Part IV. Amusements

Show in the same way how you feel about these ways of having fun. Work rapidly. Do not think over various possibilities. Give the first answer that comes to mind.

219 Golf
220 Fishing
221 Jazz or rock concerts
222 Looking at things in a hardware store
223 Boxing
224 Poker
225 Bridge
226 Solving mechanical puzzles
227 Planning a large party
228 Religious music
229 Drilling in a military company
230 Amusement parks
231 Conventions
232 Formal dress affairs
233 Electioneering for office
234 Art galleries
235 Leading a scout troop
236 Writing a one-act play
237 Symphony concerts
238 Night clubs
239 Church young people's group
240 Sports pages in the newspaper
241 Poetry
242 Skiing
243 Business magazines
244 Popular mechanics magazines
245 Reading the Bible
246 Magazines about art and music
247 Building a radio or stereo set
248 Attending lectures
249 Family pages in newspapers
250 Performing scientific experiments
251 Camping
252 Playing chess
253 Preparing dinner for guests
254 Entertaining others
255 Trying new cooking recipes
256 Being the first to wear the latest fashions
257 Organizing a play
Part V.
Types of People

Most of us choose jobs where we can work with people we enjoy. Show in the same way as before how you would feel about having day-to-day contact with the following types of people. Work fast. Don't think of specific examples. Just give the first answer that comes to mind.

- Highway construction workers
- High school students
- Military officers
- Artistic persons
- Foreigners
- Ballet dancers
- Nonconformists
- People who assume leadership
- Religious people
- Aggressive people
- Physically sick people
- Babies
- Very old people
- Emotional people
- People who have made fortunes in business
- Thrifty people
- Musical geniuses
- Outspoken people with new ideas
- Fashionably dressed people
- Prominent business leaders
- Athletic persons
- People who daydream a lot
- Outstanding scientists
- People who live dangerously

Part VI.
Preference Between Two Activities

Here are several pairs of activities or occupations. Show which one of each pair you like better: if you prefer the one on the left, mark in the space labeled “L” on the answer sheet; if you prefer the one on the right, mark in the space labeled “R”; if you like both the same, or if you can’t decide, mark in the space labeled “=”.

- Work rapidly. Make one mark for each pair.
  - Airline pilot 282 Airline ticket agent
  - Taxicab driver 283 Police officer
  - Headwaiter/Hostess 284 Lighthouse keeper
  - Selling things house to house 285 Gardening
  - Developing plans 286 Carrying out plans
  - Doing a job yourself 287 Telling somebody else to do the job
  - Dealing with things 288 Dealing with people
  - Taking a chance 289 Playing safe
  - Drawing a definite salary 290 Receiving a commission on what is done
  - Outside work 291 Inside work
  - Work for yourself 292 Carrying out the program of a superior whom you respect
  - Superintendent of a hospital 293 Warden of a prison
  - Vocational counselor 294 Public health officer
  - Physical activity 295 Mental activity
  - Dog trainer 296 Juvenile parole officer
  - Thrilling, dangerous activities 297 Quieter, safer activities
  - Physical education director 298 Free-lance writer
  - Statistician 299 Social worker
  - Technical responsibility (in charge of 25 people doing scientific work) 300 Supervisory responsibility (in charge of 300 people doing business-office work)
  - Going to a play 301 Going to a dance
  - Teacher 302 Salesperson
  - Experimenting with new grooming preparations 303 Experimenting with new office equipment
  - Being married to a research scientist 304 Being married to a sales executive
  - Working in a large corporation with little chance of being president before age 55 305 Working for yourself in a small business
  - Working in an import-export business 306 Working in a research laboratory
  - Music and art events 307 Athletic events
  - Reading a book 308 Watching TV or going to a movie
  - Appraising real estate 309 Repairing and restoring antiques
  - Having a few close friends 310 Having many acquaintances
  - Work in which you move from place to place 311 Work where you live in one place

Part VII.
Your Characteristics

Show here what kind of person you are: if the statement describes you, mark in the space labeled “Y” (for “Yes”); if the statement does not describe you, mark in the space labeled “N” (for “No”); if you cannot decide, mark in the space labeled “?.” (Be frank in pointing out your weak points, because these are as important as your strong points in choosing a career.)

- Usually start activities of my group 312
- Have more than my share of novel ideas 313
- Win friends easily 314
- Make decisions immediately, not after considerable thought 315
- Prefer working alone rather than on committees 316
- Have mechanical ingenuity (inventiveness) 317
- Am concerned about philosophical problems such as religion, meaning of life, etc. 318
- Can prepare successful advertisements 319
- Stimulate the ambitions of my associates 320
- Can write a concise, well-organized report 321
- Enjoy tinkering with small hand tools 322
- Can smooth out tangles and disagreements between people 323
- Put drive into an organization 324
- Have patience when teaching others 325
ATTITUDE QUESTIONNAIRE ON
INTERPERSONAL RELATIONSHIPS

Directions:
Using the scale below, report your interpersonal relationship skills by placing the number on the space furnished that best describes the frequency with which you react, feel or handle social situations represented by the statements.

<table>
<thead>
<tr>
<th></th>
<th>Almost always or always</th>
<th>Usually</th>
<th>Seldom</th>
<th>Never or Rarely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I am someone who can be trusted by friends and roommates when we discuss our opinions and exchange information in the dormitory.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>I am a good sport.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>In most conversations, I constantly put myself down to anyone who will listen.</td>
<td></td>
<td></td>
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<td>4.</td>
<td>Friends find me easy to talk to.</td>
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<td>5.</td>
<td>Most discussions in which I take part end up in quarrels.</td>
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<td>6.</td>
<td>I try to impose my sexual attitudes and standards on others.</td>
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<td>7.</td>
<td>I really listen when a friend or roommate is talking to me.</td>
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<td>8.</td>
<td>I am dependable; I do follow through when I am assigned a task at work by my supervisor.</td>
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<td>9.</td>
<td>I talk too much around friends.</td>
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<td>10.</td>
<td>I sometimes expect too much of friends or roommates.</td>
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<td>11.</td>
<td>At a party, I am afraid to approach people I don't know.</td>
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<td>12.</td>
<td>I allow jealousy to spoil relationships with members of the opposite sex.</td>
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<td>13.</td>
<td>I play games with friends instead of dealing straight.</td>
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<td>14.</td>
<td>When in a group discussion, I get a kick out of poking fun at peers.</td>
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<td>15.</td>
<td>I try to present a neat, attractive appearance when I am on my job.</td>
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<td>16.</td>
<td>I am generally sincere with friends and roommates.</td>
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<td>17.</td>
<td>I date people for what I can get out of them.</td>
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<td>18.</td>
<td>I keep trying to change friends.</td>
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<td>19.</td>
<td>As an adult citizen, I actually enjoy the prospect of being totally responsible for myself and my actions.</td>
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<td>20.</td>
<td>I feel like a &quot;Nervous Wreck&quot; when I am at a social function.</td>
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<td>21.</td>
<td>I feel misunderstood by my teachers.</td>
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<td>22.</td>
<td>It is hard for friends or roommates to get close to me.</td>
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<td>23.</td>
<td>I shrug off or discount the ideas and opinions of peers when we are planning an activity.</td>
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<td>24.</td>
<td>I find it flattering when people envy me for the dates I have.</td>
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</table>
25. In a classroom discussion I feel hurt or rejected if the teacher or other students disagree with me.

26. I feel that if anyone else knew the "Real" me I wouldn't have a friend in the world.

27. I am confident that I can control my emotions in most situations.

28. My immediate social goals are realistic.

29. My life goals are realistic and attainable.

30. When on a date, I find it difficult to say something to a boyfriend who is extremely unfair.

31. I get frustrated and give up too soon when something doesn't work out.

32. When disagreements arise in a relationship, I am able and willing to talk them out.

33. Dormitory/home rules get in the way of how I want to run my life.

34. I question it aloud when a teacher makes a statement that I consider incorrect.

35. I have no difficulty expressing my feelings to a member of the opposite sex whom I have become fond of.

36. I keep swallowing my true feelings in personal relationships because I believe that once aired, they will mean the end of that relationship.

37. I am most comfortable when I am the one who proposes activities, makes plans and arrangements and generally dominates a social situation.

38. I hesitate to seek help when I need it from a teacher.

39. I sit down and consciously sort out my own feelings about personal relationships.

40. I am able to say "No" without feeling guilty when a friend or roommate makes what I consider an unreasonable request to borrow my personal belongings.

41. I am afraid to reveal my true self with members of the opposite sex.

42. I would not find it difficult to remind a friend who had borrowed $5.00 from me and seemed to have forgotten it.

43. I have no difficulty working on a community project with people who have a lower educational level than I.

44. I have no difficulty requesting that a person in authority wait until I have finished, if he/she interrupts me in the middle of an important conversation.

45. I spend time with roommates or peers who are from a different country than I.

46. I find it difficult to say something to a friend who is extremely unfair.

47. I have no trouble expressing my opinion on an issue to an adult.

48. I get along well with members of the opposite sex.
NAME:

LOCAL ADDRESS:

PHONE NO.:

PERMANENT ADDRESS:

CLASSIFICATION:

SOCIAL SECURITY NO.:

INTENDED MAJOR:
BIBLIOGRAPHY

Books


Periodicals


Fischer, Judith L. "Transitions in Relationship Style from Adolescence to Young Adulthood." Journal of Youth and Adolescence 10 (February 1981): 11-23.


Unpublished Works
