



Influence of role and goal motivation upon curriculum choice at Montana State University
by Gardy Van Soest

A thesis submitted in partial fulfillment of the requirements for the degree of DOCTOR OF
EDUCATION

Montana State University

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Abstract:

The intent of this study was to classify a sample of 131 students from the five academic Colleges and the General Studies program at Montana State University as either role motivated or goal motivated, then determine what effect their direction of motivation had upon their choice of major field of study.

Students were classified as role or goal motivated on the basis of (1) curriculum choice or lack of choice, (2) university academic performance, (3) the development of vocational plans, and (4) their composite role-goal motivation profile which was developed on the basis of their responses to the first three means of classification.

Two instruments were administered to the students, the California Psychological Inventory (CPI) and the Survey of Student Interests and Values which was developed by the investigator. Additional data pertaining to type of high school attended, high school academic performance, academic ability, and university academic performance was compiled and analyzed.

Hypotheses were grouped into three categories: (1) personality characteristics and self-concept; (2) educational-vocational goals and values; and (3) demographic data. All hypotheses were tested at the .05 level of significance, using either the least-squares analysis of variance, t-test, or chi square, depending upon the type of data analyzed. The CPI revealed several differences relating to personality characteristics and self-concept. The goal motivated students tended to be more outgoing, sociable, and dominant. Their level of self-concept was higher; they were more concerned with creating a good impression; and they were less flexible in nature than were the role motivated students.

Results relevant to educational-vocational interests and values revealed that role motivated students were not as satisfied with their curriculum choice as the goal motivated students, were unsure of their future vocational plans, and felt that an important personal objective was to develop a meaningful philosophy of life. The goal motivated students tended to view college as preparation for an occupation, had selected their future vocation by the time they had completed high school and were more interested in leadership and political affairs.

Results relating to demographic data revealed that good high school students did well academically in college, and those who scored high on tests of academic ability did well in college. In looking at their major field of study, it was found that agriculture, commerce, home economics, nursing, and sociology were fields dominated by goal motivated students. The majority of role motivated students were in the General Studies program.

INFLUENCE OF ROLE AND GOAL MOTIVATION UPON CURRICULUM
CHOICE AT MONTANA STATE UNIVERSITY

by

GARDY VAN SOEST, JR.

A thesis submitted in partial fulfillment
of the requirements for the degree

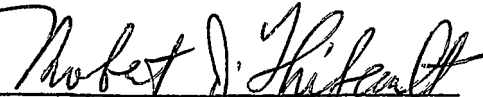
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ABSTRACT

The intent of this study was to classify a sample of 131 students from the five academic Colleges and the General Studies program at Montana State University as either role motivated or goal motivated, then determine what effect their direction of motivation had upon their choice of major field of study.

Students were classified as role or goal motivated on the basis of (1) curriculum choice or lack of choice, (2) university academic performance, (3) the development of vocational plans, and (4) their composite role-goal motivation profile which was developed on the basis of their responses to the first three means of classification.

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Results relevant to educational-vocational interests and values revealed that role motivated students were not as satisfied with their curriculum choice as the goal motivated students, were unsure of their future vocational plans, and felt that an important personal objective was to develop a meaningful philosophy of life. The goal motivated students tended to view college as preparation for an occupation, had selected their future vocation by the time they had completed high school, and were more interested in leadership and political affairs.

Results relating to demographic data revealed that good high school students did well academically in college, and those who scored high on tests of academic ability did well in college. In looking at their major field of study, it was found that agriculture, commerce, home economics, nursing, and sociology were fields dominated by goal motivated students. The majority of role motivated students were in the General Studies program.

Chapter 1

INTRODUCTION

Several developments which have occurred during the past quarter century have produced a great deal of social unrest, particularly among the younger people in the Western world. Alienation, atomization, and the rejection of many time-honored social values were among the results. William Glasser (1972:37) described these events as a major cultural shift for most of the people involved; a shift described as one from goal motivation to role or identity motivation.

Historically, man has been primarily goal-directed. Survival was the primary goal of primitive man. The hostile environment forced primitive man into cooperating with one another in order to defend themselves against predatory animals, to obtain food, and to raise their young. When man did not cooperate, he often suffered and sometimes died.

As early man learned to cooperate, he gradually learned to enjoy the company of his fellow man. He became motivated to cooperate not only for survival but for pleasure. During this period of time man developed the ability to become deeply involved with one another. Man became more motivated toward role rather than toward the goal of survival. He lived in a society in which his human needs and human gratification--his identity--were his major concern. Over these thousands of years the need for involvement with our fellow man became

fixed in our nervous system. The times when man became uninvolved with his fellow man resulted in the pain of loneliness (Glasser, 1972:16).

The emphasis on role and goal once again changed as time went by.

As society became more civilized, man again became more goal oriented. Glasser stated that:

To survive, men relinquished their individuality and became subservient to the group. Work became necessary, and to ensure their survival, strong men forced or persuaded others to labor for them. The control by one man of other men characterized the society. Most men lost their pleasure-dominated role orientation and, struggling to survive, reverted to a pain-dominated goal orientation (1972:20).

Glasser went on to explain that:

Men were able to concern themselves with a role only after ensuring their security. In the civilized survival society's concern with role was possible for few men. Even for these few the role was not a freely chosen role independent of goal such as characterized the primitive identity society, but a limited, specialized, dependent role related to a survival or security goal Most men struggled continually to survive. They had no role or identity--independent or dependent (1972:20).

Civilization forced most men to suppress, delay, or alter their need for involvement. As men suppressed their need for involvement to survive, goal effectively replaced role. In civilized societies most people have no identity and live in constant frustration because their need for involvement is unfulfilled (Glasser, 1972:21).

In order to gain some security and a dependent role, many of those with no identity or minimal identity try to take on some aspects of those in power at the time. In turn, they become more dependent

upon the social order and less dependent upon themselves. The only identity possible for almost everyone in such a society is an identity narrowly related to work or class—a dependent role. This role depends on what one does rather than who one is (Glasser, 1972:25).

Suddenly, within the last quarter century, Western people have become much more concerned with gaining a successful identity based upon who they are and not on what they do. People became less anxious about fulfilling goals to obtain security from within the power structure and became more concerned with themselves as humans. They began to seek an independent role, their identity, before searching for goals (Glasser, 1972:27).

Marshall McLuhan (Playboy, March 1969) answered a question about youth and social unrest, "From Tokyo to Paris to Columbia, youth mindlessly acts its identity quest in the theatre of the streets searching not for goals but for roles, striving for an identity that eludes them."

People are still striving for goals, but they are goals which reinforce and enhance their independent role or identity. Glasser (1972:28) pointed out that identity or role is either totally independent of goal, or, if goal and role are related, role is more important.

Glasser went on to state that:

The shift to the identity society role sequence, in which the independent role comes first, is not limited to the more publicized young: the hippies, the demonstrators, and the social dropouts. It is not so obvious in other people, but only a rare young

person today is willing to subordinate his identity to security. Although many work and seem to be the same as young people of years ago, they are not. Affluence, political freedom, and television, the three building blocks of the identity society that led to the new role sequence, seem to be so firmly entrenched into our way of life that the young, knowing little except these three conditions, have no reason to give up their search for identity. Their search for independent roles and their demand for goals that reinforce their independent roles have caused great conflict within the weakened but still far from dead power structure (1972:39).

The shift from goal to role motivation has produced what Glasser (1972:37) termed as a cultural conflict. Many young people are role motivated while the institutions of our society--school, prisons, and families--operate as if goal takes precedence over role. The institutions are saying "subordinate yourself to the job to be done," while the young are saying "recognize me as a person or I will drop out or do no job at all."

STATEMENT OF THE PROBLEM

The problem of this study was to identify demographic and personal characteristics which would differentiate role motivated from goal motivated freshmen students at Montana State University. The problem was also to indicate what effect, if any, that a person's identity, or lack of identity and direction of motivation would have upon his ability to make a curriculum and vocational choice.

PURPOSE OF THE STUDY

The purpose of this study was to conduct the research needed to investigate the relationship between the direction of motivation, role or goal, and the ability to make curriculum and vocational choices. The focus was upon freshmen in the General Studies program and freshmen who have chosen a specific major field in one of the five academic colleges at Montana State University.

The investigator planned to share the results of this study with the personnel on campus who would most benefit from the information.

NEED FOR THE STUDY

In the past five or six years there has been a tendency for an increasing number of students to enroll in General Studies even though the total enrollment at Montana State University has remained relatively stable, according to figures released from the Office of the Registrar. Do these enrollment trends in General Studies support what Glasser is saying about the new generation in relation to role and goal motivation? Are more students rejecting the goals of society and first seeking to establish a personal identity or independent role before committing themselves to a choice of curriculum and career? If so, are these students who are seeking an independent role postponing the selection of a curriculum and vocational choice and entering the General Studies program?

A review of the literature indicated that little research had been done relating to the direction of motivation, role or goal, and the effects that may result in regard to making commitments relating to curriculum and vocational choice.

Keniston (1965:4) spoke of today's youth:

We see alienation especially clearly in American youth, poised hesitantly on the threshold of an adult world which elicits little deep commitment. Despite the achievement of many of the traditional aspirations of our society, we feel a vague disappointment that the goals that promised so much have somehow meant so little real improvement in the quality of human life. Whatever the gains of our technological age, whatever the decrease in objective suffering and want, whatever the increase in our "opportunities" and "freedoms," many Americans are left with an inarticulate sense of loss, of unrelatedness and lack of connection.

In relation to alienation and lack of commitment among today's youth, one may ask, "Where does the university fit in with this problem?" "Does the university provide a period of time in which the student can 'find himself' or should the university be for those who have an identity, a successful role, and are seeking goals which will reinforce the independent role or identity of that individual?"

There may be a combination of both role and goal motivated students on campus at Montana State University. It was hoped that the results of this study would provide information that the faculty and staff could use in better understanding and in working with college students, role or goal motivated, during this oftentimes difficult period of life.

GENERAL QUESTIONS TO BE INVESTIGATED

Several questions were developed relating to the purpose of this study.

1. Are there identifiable characteristics which would distinguish role motivated from goal motivated students?
2. What effect does an individual's motivation, role or goal, have upon his selection of a college curriculum and future vocation?
3. Are some students at Montana State University first seeking an independent role (identity) before selecting a curriculum and establishing long-range vocational plans?
4. Are students in General Studies more role motivated than goal motivated?

GENERAL PROCEDURES

The problem was approached by first determining which instruments were available that would be capable of assessing the characteristics needed to answer the general questions. The investigator decided to use the California Psychological Inventory (Gough, 1957) and the Survey of Student Interests and Values for this purpose. The latter instrument was developed by the investigator. The other data needed in the study was available from University records.

The next step was to determine the number of freshmen in General Studies and each of the five academic colleges at Montana State

University. The curriculum list for Winter Quarter, 1974 was then examined to see if any of the classes offered would give a close ratio in relation to the total number of freshmen enrolled. The two sections of Psychology 103, General Psychology, offered during this quarter gave the closest ratio with the greatest ease of collecting the data.

The data was collected during the Winter Quarter, 1974, organized, and analyzed following the collection.

This paper has been structured along the following outline. In Chapter 1 an introduction to the problem was presented, a statement of the problem was given, the need and purpose of the study was clarified, and general questions to be investigated were considered. General procedures were described, limitations acknowledged, and a definition of terms were given.

Chapter 2 consisted of a review of selected literature deemed pertinent to the problem and questions presented in Chapter 1 relating to role and goal motivation and the process of curriculum and vocational choice. Literature reviewed included that of personality and vocational development among college students; differences between vocationally decided and undecided students; self-concept, identity, and vocational development; and goals, values, and vocational development of college students.

Chapter 3 consisted of the research procedures. Included were the description of the community and population, methods of collecting

the data, the reliability and validity of the instruments used, and the organization and analysis of the data.

Chapter 4 consisted of the analysis and the results of the data collected.

Chapter 5 consisted of the summary, conclusions, and recommendations for further research.

LIMITATIONS OF THE STUDY

1. This study was limited to freshmen students enrolled during Winter Quarter, 1974.

2. The method of using volunteer students from General Psychology classes may have been a limiting factor. There is the possibility that a certain type of student will respond on a volunteer basis.

3. The general student population at Montana State University may have been a limiting factor. Due to the nature of its curriculum offerings and geographical setting, a certain type of student, not representative of students nationwide, may be attracted to Montana State University.

4. The resources available at the Library of Montana State University may have been a limiting factor. Financial resources available and selections recommended by the faculty limit the scope and variety of resources.

5. The selection of the literature to be reviewed by the investigator may have been a limiting factor. The investigator restricted his review to certain selections and may not have reviewed other appropriate literature.

6. The instruments used to collect the data, the California Psychological Inventory and the Survey of Student Interests and Values, may have been limiting factors. Other instruments, unknown to the investigator, might have been more appropriate for the study.

7. This study is limited by the functional definitions of role and goal.

DEFINITIONS OF TERMS

The terms listed here were used throughout the study and may be defined as follows.

Role motivated. A student will be classified, for the purposes of this study and in accordance with Glasser's concepts of motivation, as role motivated as to:

- a. having made no specific curriculum choice,
- b. having made no long-range vocational plans,
- c. academic performance below the mean grade point average, and
- d. composite role-goal motivation profile of the study population.

Goal motivated. A student will be classified, for the purposes of this study and in accordance with Glasser's concepts of motivation,

as goal motivated as to:

- a. having made a specific curriculum choice,
- b. having developed long-range vocational plans,
- c. academic performance above the mean grade point average, and
- d. composite role-goal motivation profile of the study population.

A student must have responded to a majority of the items in one direction or the other in order to be classified as either role or goal motivated.

Independent role. A role or personal identity based upon who a person is and not on what he does.

Dependent role. A role or identity based upon what a person does rather than who he is as a person.

Goal. An objective which one strives for to support or enhance his identity; an objective that society or the institutions of society may have for its member.

General studies. At Montana State University, a General Studies program has been designed to serve those students who for various reasons are unable to declare a choice of curriculum at the time of admission. The student is encouraged to sample courses in various departments, depending upon his interest and abilities, before being required to

select a specific curriculum by the end of the quarter in which he earns his ninetieth credit.

Academic colleges. Undergraduate instruction at Montana State University is administered through five colleges:

1. College of Agriculture
2. College of Education
3. College of Engineering
4. College of Letters and Science
5. College of Professional Schools

SUMMARY

The need for an adequate identity for everyone is summarized by Blocher:

Without answers to identity questions, many people seem unable to provide organization to their lives, or to attach meaning to the events and experiences that confront them. Such individuals often cannot commit themselves to purposes, take appropriate risks to achieve goals, or establish value systems that give direction and consistency to their behavior. They are often unable to take responsibility for their own lives or to accept the consequences of their own behavior (1966:8).

The investigator viewed this study as a beginning in better understanding the differences among college students relating to personality characteristics, ability, goals and values, identity, and the ability to make commitments to curriculum and vocational choices. College faculty and staff members must start work with the student

"where the student is." Students may be in different positions along the continuum of curriculum and vocational development and these differences should be recognized in order to best meet the needs of the individuals involved.

This chapter presented an introduction to the concept of role and goal motivated people and posed several questions relating to the possible effects this direction of motivation may have upon the process of curriculum and vocational choice. The need for the study, general procedures for conducting the study, limitations, and definitions of terms were presented.

Chapter 2 includes a review of the literature relating to this particular study.

Chapter 2

REVIEW OF LITERATURE

The primary emphasis of this chapter was the review of literature relating to personality and vocational development among college students and the relationship of their development and direction of motivation, role or goal, to the process of curriculum and vocational choice.

The chapter was organized around the following sequence:

1. Personality and vocational development among college students.
2. Differences between vocationally decided and undecided students.
3. Self-concept, identity, and vocational development.
4. Goals, values, and vocational development of college students.

PERSONALITY AND VOCATIONAL DEVELOPMENT AMONG COLLEGE STUDENTS

Making curriculum and vocational choices among entering college freshmen is a problem which is not new to the college scene. In 1924, W. M. Proctor said:

It is doubtful if any university in the country has a more direct mandate from its founders to see that its system of education is kept in touch with the practical affairs of life, and to insure to its students such educational and vocational guidance as shall assist them in choosing and preparing for useful life careers (1924).

Wrenn (1942:54) mentioned that from 20 to 25 per cent of all college students, from a study conducted in the 1930's, viewed uncertainty of vocational goals as a problem.

In 1957, Donald Super pointed out that schools and colleges need to develop and carry out educational and vocational guidance programs so that the amount of time which students spend in "trial and floundering" would be minimized and they would be able to make a wise job selection (Super, 1957:310).

Curriculum and vocational uncertainty is still with us as Schneider (1973) stated, "Many college students frequent campus counseling centers seeking help with educational-vocational concerns and indecision. These students typically want to know what major or occupation they are best suited for."

Several theorists look upon the selection of a curriculum and vocation as steps in a developmental process. Super (1953) stated that making choices and adjustments was a continuous process. He later went on to state that:

Specification of a vocational preference is a developmental task of the middle and late adolescent years, of the 18-21 year old period of the transition substage. It is during these years that the older adolescent is expected to convert a generalized choice into a specific choice and to make a final commitment by embarking in the next or implementation substage upon a specialized education or training program or by taking a beginning job designed to serve as an entry to a chosen field (1963:82).

To support the concept of developmental stages, Ginzberg (1952) theorized that, ". . . occupational choice is a process; the process is

largely irreversible; compromise is an essential aspect of every choice." Holland (1959) felt that the concept of a developmental hierarchy, as relating to vocational choice, should be amenable to further research particularly through the use of interest inventories.

Schneider supported the developmental concept by stating that:

Traditional vocational theory has conceptualized these (educational-vocational) problems in a trait-factor framework but more recently theorists have become increasingly interested in decision-making strategies and developmental conceptualizations. This latter view considers vocational development as a series of choice points and requires the individual to make relevant decisions within the framework of the social system. As a person approaches a vocational choice-point, it is thought that the social expectancy or situational demand for a decision would have a bearing on his decision-making processes. A college student's selection of a major field is included by many vocational theorists as one of these developmental choice points (1973).

Madison (1971) suggested that the original choice of college majors serves primarily a personal developmental function--so much that we should view adolescent career choices as serving personality rather than vocational needs. He went on to state that the early choices of vocation and corresponding fields of study are primarily developmental phenomena. Part of this developmental function is what he termed as developmental synthesis. The synthesis seems to take place between the first choice of a college major and the final one. It involves a temporary choice that seems to allow the developmental changes in personality necessary to making the final choice.

Research in educational psychology and in vocational development

also stresses the importance of individual differences. We seem to readily accept differences in abilities and interests but somehow are ignorant to differences in the stages of vocational development, especially when making demands upon college freshmen. Too often we are saying to high school seniors or college freshmen, "you must make a choice of major field or curriculum," or "you must know what type of work you want to do," but many of these young people have no rational basis, such as exposure or experience, for making such a decision at this point in their lives.

Marr (1965) stated that often an individual makes a choice because he perceives that a choice is expected of him, and that failure to make one creates dissonance which he strives to reduce.

Super summed up well the expectations society imposes on the late adolescent age group:

The job-seeking high school senior is expected to express a preference, to specify what kind of job he wishes, the college sophomore is expected to specify the major field in which he will study, the graduating college student is expected to have a specific type of job or graduate education in mind as his next goal (1963:82).

Wrenn stated:

Frequently the student is supposed to have made an intelligent choice of a major without knowing the kind of abilities required for success in a given field of study or the vocational or life goal to which it may lead (1942:56).

Wrenn further mentioned that:

Many of the choices of major have been made without a careful consideration of vocational outlets and many choices of vocation

have been made with some disregard of appropriate major fields of study (1942:86).

Today, if one were to examine a given class of entering freshmen at Montana State University, he would find that approximately 20 per cent of these people are undecided upon major field of study (according to figures from the Registrar's office) and are entering the General Studies program, and that a number of freshmen students who made an initial choice of major field are quite dissatisfied with their choice and will change into another curriculum or enter General Studies.

Statistics from the office of General Studies indicated that at the beginning of Winter Quarter 1974, eighteen freshmen from other curricula entered General Studies; but at the beginning of Spring Quarter 1974, sixty-nine freshmen entered General Studies from other curricula. These figures seem to indicate that most freshmen who are dissatisfied will make a change of curriculum to a program that they feel will better meet their needs or to a program, such as General Studies, where they can explore and broaden their horizons before making a specific commitment to a major field of study.

Studies by Slakter, Malcolm, and Cramer support these figures on change and the need for exploration by stating that, "... research on change of major in college rather strongly points to the tenuous nature of instability of freshmen curriculum and vocational choice through the first two years of college (1969)."

There appeared to be a great deal of variation at which age individuals made vocational decisions. Snelling, Rodman, and Boruch (1970) indicated that, in general, students are making decisions earlier in their educational career on their preferred major areas of study. They felt that some of the factors relating to earlier choice may be due to more emphasis on vocational counseling and increased societal pressure on the student to make career choices.

Sex and particular field of interest are also determining factors at which age choice of career or major field of study is made. Men tend to make decisions earlier in life than women, and science majors tend to choose earlier than liberal arts majors (Snelling, Rodman, Boruch, 1970).

Coons (1970) felt that choosing a life's work need not be synonymous with choosing a vocation. Also, a freshman who has chosen a curriculum has probably not chosen a specific life's work or even a vocation because he is not yet acquainted with the other alternatives available to him. At this stage all a student can realistically say is that he prefers one curriculum over another. The first one or two year in college provides a place where the student can explore and begin to narrow his vocational choice. It may be several years beyond college before an individual selects his life's work. One of the primary advantages of a college education is that it may allow the individual a wider range of choices in his life's work.

Effects of Personality on
Vocational Development

This selected review of the literature dealing with the relationship of personality factors and curriculum and vocational choice found some disparity among the reported results dealing with the impact of personality factors on vocational development.

Berger investigated the relationship between personality, perceived need satisfaction, and job area preference. Berger stated that:

Although most studies have found significant differences among personality characteristics of persons in different occupations, the relationship between personality and occupational choice is usually of low correlation, and many "external" demographic factors seem to be more important (1966).

The results from Berger's study indicated that:

1. Job area preference is related to personality need strength.
2. Perception of need satisfaction in the most preferred area is related to personality need strength.
3. The interaction between personality (as measured by the EPPS) and perceived need satisfaction (as measured by the Nursing Questionnaire) is a better predictor of job area preference than other personality or perception alone (1966).

Goldschmid (1966) conducted a study dealing with the relationship between personality and educational choice. Students were grouped as to either science or humanities oriented and assessed with five personality measures, including the CPI. He found several significant personality differences between the two groups. Goldschmid summarized the differences between the two groups:

Science students are prudent, conventional, and energetic. They prefer overt action and tend to evaluate an idea on the basis of its practical and immediate applications. They are relatively free from self-doubt and worries, but tend toward strict control of impulse. Their range of interest is rather restricted. In social situations they are reserved, retiring, and introverted. They prefer logical, precise analysis, and value form and structure. They are also characterized by impersonal and critical habits of thinking.

Students in humanities value personal independence and freedom from rules and constraints. They are self-centered and given to complaining about their physical and psychological status. They are emotionally expressive and anxiety prone. Their interests are varied and include literature, philosophy, art, and religion. They are responsive to social and political affairs, seek social contacts and gain satisfaction from them. Their preferred cognitive mode is intuitive, personal, and subjective. They like innovation and ambiguity (1966).

Wigent (1973) designed a study to identify how selected personality variables were related to the career decision-making abilities of community college students. He found that psychological needs were inappropriate as predictors of which students would have difficulty with the career decision-making process.

Craig conducted a study which was designed to examine Holland's theory of personality and vocational choice as it applies to the relationship between personality type and academic course selections in a relatively choice-free curriculum. He administered the Vocational Preference Inventory to seventy-two male students in the Bachelor of General Studies curriculum at a large mid-western university. Following are his general conclusions:

1. Students demonstrated a strong tendency to select a majority of courses from academic environments that are directly related to their personality orientation.

2. The B.S. degree in General Studies has the greatest appeal for the student characterized as needing and wanting little structure. The more rigid, structure seeking student tends to avoid the program.

3. The course selection by the General Studies students reflects broad curriculum exploration rather than rigid confinement (1973).

Pietrofesa made a comparison of the need structure of college students enrolled in different academic majors. He felt that underlying the choice of an occupation is the individual's perception of the potential satisfaction of the basic needs as defined by the EPPS, that is, he perceives a particular occupational role as potentially capable of providing him with the basis for self-realization.

Pietrofesa formulated the following conclusions:

1. A fundamental relationship exists between personality needs and the choice of a college major.

2. Students in a given school or college, even though in different areas of study within the school, display relatively similar personality need patterns.

3. The basic personality need patterns of many of the groups support their "stereotypic" descriptions. The individual's information relating to stereotypes operates in the choice of a given occupation (1968).

Wish and Hasazi (1973) investigated the motivational determinants of curricular choice in college males. The relationship of achievement-related motivational variables and subjective probability of success to curricular choice in college men was studied. When the fear of failure was greater than the need for achievement, subjects chose majors with either a low or high probability of success, regardless of how probability of success was judged. When need for achievement was the

greater of the motives, results depended on how probability of success was determined. Subjects chose majors with a low or high probability of success when the self was used as the standard of judgment but chose majors with an intermediate probability of success when other persons were used as the standard.

Mahone (1960) stated that realistic vocational choices were made most often by college students scoring high in need for achievement and low in test anxiety. Unrealistic vocational choices were made most often by students low in need for achievement and high in test anxiety.

Isaacson (1964) mentioned that when need for achievement was greater than fear of failure, male college students chose majors with an intermediate probability of success. Majors with either a low or high probability of success were chosen when the fear of failure was greater than the need for achievement.

Osipow and Gold (1967) studied a sample of entering college freshmen and divided them into two groups on the basis of the consistency or inconsistency of their first and second career preferences. The two groups were compared on several family and personal factors in order to identify variables that are related to inconsistencies in career preferences. The groups were observed to be somewhat different in the general level of their academic ability and the degree to which their interests were supported by SVIB results. No significant family differences between the two groups were observed. These findings were

tentatively interpreted as implying that the inconsistency of career preference was more likely to be the result of the student's recognition of his limited abilities than other variables examined in the study. Consistent students held their plans with greater certainty than did the Inconsistent students. More Inconsistent subjects were enrolled in highly flexible majors like liberal arts, while more Consistent subjects were in highly structured programs such as engineering. The only personality trait to distinguish the two groups was the Dominance score on the Bernreuter Personality Inventory, reflecting the Inconsistent's greater tendency toward self-assertion. Comparison of the first occupational preference with occupational plans revealed that members of the Inconsistent group are more likely than Consistent subjects to experience the dilemma of choosing an occupation that is not their preference. First occupational preference and the first curriculum in which the student enrolled were unrelated for forty Inconsistent subjects and for twenty-eight Consistent subjects.

Sedlacek (1969) investigated the certainty of vocational choice and persistence in vocational choice for college women in relation to the following factors: type of vocational choice, vocational interest patterns, personality needs, academic ability and performance, and family background information. The 132 women were grouped as to being very certain, fairly certain, or uncertain as to vocational choice and data was collected for them using the SVIB, EPPS, ACT scores, and a

personal information inventory. Significant differences were found among the three groups on four of the personality needs scales: Succorance, Dominance, and Endurance. A significantly larger proportion of women from the very certain and fairly certain groups chose traditional feminine vocations than did those of the uncertain group. The very certain group scored lower than the other two groups on the Mathematics, Natural Science, and Composite scores on the ACT. A significant relationship was found between change in vocational choice and certainty of vocational choice expressed upon college entrance.

Flexibility, as measured by the Flexibility Scale of the California Psychological Inventory, was investigated by Colina (1971). He found that social science majors who were the most satisfied were more flexible than those who were least satisfied, but the relationship was reversed for natural science majors.

Summary

The review of the literature relating to personality and vocational development among college students indicated that curriculum and vocational choice is not a single decision at a given point in time but a developmental process that takes place over a number of years.

Many factors, both intrinsic and extrinsic, affect the curriculum and vocational choices that college students make. Family background, job and school experiences, friends, and sex of the student all play a part in the choice. The individual's personality

characteristics, needs, etc. also influence the decisions and at which age these decisions are made.

The choices made during the first two years at college are quite tentative. Students often make one or two changes of curriculum before making a final commitment to a major field of study. It appeared that many students are entering college with a limited background and limited experiences and need the first year or two for personal and curriculum exploration.

DIFFERENCES BETWEEN DECIDED AND UNDECIDED STUDENTS

If students are entering their freshman year of college in various stages of vocational development, then there may be certain individual differences among these students. Several research studies have been conducted in order to determine what these differences may be.

Wrenn (1942:94) stated that there were no sex differences in uncertainty about vocational goals and no sex differences relating to confusion in selection of major.

Ashby, Wall, and Osipow (1966) conducted a study on an attempt to develop an understanding of the personality and demographic factors that differentiate vocationally decided from vocationally undecided students. Factors examined included background, personality characteristics, and college performance. Students were grouped as Decided, Undecided, and Tentative, based upon expressed certainty of vocational

goals. The major differences indicated that the most undecided group was more dependent than the other two groups, but equal to the most decided group in academic achievement, while a middle, or tentatively decided group, was not as successful academically as the most and least decided groups.

Holland and Nichols (1964) conducted studies relating to the development and validation of an indecision scale. They found that the failure to make vocational plans and the tendency to change vocational plans was associated with a cluster of personal traits which was conducive to achievement and creative performance. Holland and Nichols went on to say that:

Students who are "undecided" about a vocation may be in such a state for several reasons: they may have a complex and creative outlook about the world, especially the world of work; they may be confused and unstable; they may be poorly informed about vocations. For some people, the deferment of vocational choice may represent a slow and complex rate of personal development (1964).

Baird conducted research which followed up the work done earlier by Holland and Nichols relating to The Indecision Scale. He found that males with high indecision scores:

. . . tended to show unusual potential for persuasive and artistic achievement, had more experiences, claimed more competencies, and came from a home with greater intellectual resources. He also seemed to prefer social, artistic, aggressive, feminine, and prestigious occupations. His self-ratings and life goals were generally consistent with the rest of this pattern. The results for girls were far less consistent, but showed some of the same trends (1968).

Baird also examined occupational fields and classified them as either "high fields" or "low fields" on The Indecision Scale. The low fields were pragmatic, realistic, connected with specific vocational roles, had well defined work duties, and required highly structured training. Examples were business, engineering, library science, clerical, veterinary medicine, and physics. High fields provided broad non-specific training. Examples were art, humanities, education, psychology, speech, religion, and the fine arts.

Baird (1968) went on to say that "bright students who have not chosen a specific vocation may be delaying that choice because they are capable of doing many things and, therefore, have many more alternatives open to them."

In a later study, Baird (1969) found only chance differences when comparing decided and undecided college freshmen. The results of this second study demonstrated no differences between these students on academic aptitude and high school grades. He did find that the undecided students were less vocationally oriented and more intellectually oriented than were the decided students.

Whitney (1969) reviewed a large number of longitudinal studies dealing with prediction from a person's expressed vocational choice. In general, a person's expressed vocational choice predicts his future employment about as well as interest inventories or combinations of personality and background characteristics.

Whitney went on to say that:

A college student's major field choice is a form of action commitment to a vocational preference. The fact that 74% and 83% of men and women college graduates, respectively, were employed in their major field five years after graduation indicates a high degree of commitment (1969).

In relation to the undecided student, Whitney stated:

A major drawback to the use of expressed choice lies in the relatively large proportion of adolescents who respond to "undecided" or "no choice" options on preference lists. Since there may be many explanations and interpretations of being undecided, interest inventories are very useful in distinguishing between clients with no well-developed interests and those with multiple and sometimes conflicting interests (1969).

Crites (1969) reviewed many early studies of vocational indecision and concluded that, on the whole, the number of students who were undecided decreased as age and school grade increased.

Appel, Haak, and Witzke (1970) surveyed forty-three men and forty-five women students who were declared "undetermined majors." They used a twenty-item instrument designed to measure dimensions of decision-making behavior on a seven-point scale. The results provided six meaningful factors: (1) situation-specific choice anxiety, (2) data-seeking orientation, (3) concern with self-identity, (4) generalized indecisiveness, (5) multiplicity of interest, and (6) humanitarian orientation. It was found that, in general, the undecided were quite a heterogeneous group and that a variety of courses of action would be useful in aiding them.

Brown (1970) reviewed studies pertaining to the relationship

between personality characteristics and vocational choice. He found that college students with different vocational goals have distinct attitudes and personalities. Brown also reported that there were relatively few differences between inconsistent (curriculum changers), undecided students, and those who had chosen an academic goal.

Bohn (1971) conducted a study of 219 men entering Washington University in 1966. Data was collected on those who indicated their probable career choice as Engineer, Lawyer, Physician, or Undecided. Bohn reported that the Undecided students had "need" scores that varied directly opposite to those of Lawyers.

Elton and Rose (1971) divided freshmen men from the University of Kentucky into three groups: those who were undecided about major as freshmen, those whose senior major was different from their freshmen choice, and those who persisted in their original choice. The students were classified into Holland's six occupational categories. No significant differences in personality or ACT scores were found among undecided, the changers, or the persisters in any of the occupational categories.

In a study conducted at Ohio State University, Walsh and Lewis (1972) administered the Vocational Preference Inventory and the Omnibus Personality Inventory to students taking general psychology. The students were also asked to indicate their present or planned college major. They were then classified as either being congruent, incongruent,

or undecided on the basis of personality type and major choice. The total undecided group (men and women) scored highest on Impulse Expression and the undecided men had the highest scores of the groups on Impulse Expression and the lowest scores on Anxiety Level and Altruism.

Miriam conducted a study of undecided students to determine if they differed from decided students with respect to various characteristics and to see if undecided students with many interests differed from undecided students with few interests. Miriam tested two hypotheses:

1. Freshmen and sophomore students who were vocationally undecided would reveal a greater breadth of vocational and intellectual interests, would indicate a greater concern with social issues, would be more open-minded and would have a higher scholastic aptitude than their decided counterparts.
2. Within the vocationally undecided group, the multiple focused (many interests) would differ significantly from the unfocused subgroup (few interests), displaying greater breadth of intellectual interests, more concern with social issues, greater open-mindedness, and higher scholastic aptitude (1973).

Hypothesis number one was rejected. There were no significant differences between the groups.

In hypothesis number two, it was found that freshmen multiple focused undecided group had significantly higher scores than the unfocused undecided group on three of the four responses--(1) scholastic aptitude, (2) concern with social issues, and (3) breadth of intellectual interests. No difference was found for openmindedness.

Harman (1973) investigated the differences between vocationally decided and undecided students with respect to personality, interest,

and ability measures. Scores were obtained from the Strong Vocational Interest Blank (SVIB), the Omnibus Personality Inventory (OPI), and the American College Test (ACT).

There was no significant difference on the SVIB, OPI, and ACT between the decided and undecided females. For males, there was no significant difference between the decided and undecided groups on the ACT composite score. There was a significant difference on the Response Bias scale of the OPI. On the SVIB the vocationally decided group scored significantly higher on the three Basis Interest Scales: Mechanical, Teaching, and Art, as well as two Occupational Scales: Air Force Officer and Public Administrator. The undecided group scored significantly higher on the Veterinarian scale.

Galassic (1973) investigated the level of alienation in college students who sought personal adjustment or vocational-educational counseling and students who did not seek counseling. It was found that vocational or educational indecision does not seem to be associated with either interpersonal or cultural estrangement. Levels of alienation of vocational-educational clients and non-seekers are similar to each other in personal characteristics and unlike personal adjustment counselees.

Kahoe (1966) grouped students on the basis of having no vocational preference, having a non-realistic preference, and having a realistic preference. It was found that the no vocational preference

group was less motivation oriented than the other two groups. Motivation was described as having interests in the rewards and process of work itself. Self-actualizing tendencies such as achievement, recognition, and responsibility were included in the description of motivation.

Marr (1965) examined some behaviors and attitudes relating to vocational choice. Questionnaires and interview data were used to study the way 129 men had made vocational choices. Compared to those who had not made a choice more subjects who had made a choice were accepting of a father or father substitute. Having made a choice was not related to parent's occupational level, self-regard, variability in self-rating, or intelligence. Of those who made a choice, early deciders were more self-directing and more desirous of continuing in their occupation. Non-self-directing subjects had lower self-regard scores than the others.

Summary

The literature relating to differences between vocationally decided and undecided students revealed differences in some studies while other studies indicated few or no differences.

In general, the vocationally undecided group of college students are quite heterogeneous in nature. Several studies indicated that undecided students, as a group, leaned toward the social sciences and humanities curricula. They exhibited more aggressive, sociable, and feminine characteristics than did the decided students. There seemed to be no significant sex differences between the decided and undecided

students. Little difference was revealed in academic performance or ability but the undecided students tended to be more intellectually oriented. A few studies indicated specific personality differences such as levels of personal achievement desired and motivation toward work, with the undecided being less motivated but more achievement oriented. There seemed to be no differences in levels of alienation or cultural estrangement between the two groups.

A large portion of the difference between the vocationally decided and undecided seems to be accounted for by the differential rates of personal and vocational development. Some college freshmen are more capable than others of making a curriculum or vocational choice because they are at a stage in their development where they have the background, personal, and environmental data necessary to make an adequate choice.

SELF-CONCEPT, IDENTITY, AND VOCATIONAL DEVELOPMENT

How a person views himself is thought to have a large impact upon how he acts in most life situations. The development of the self-concept comprises a significant proportion of the personality development of an individual.

Brandon (1971) pointed out that a man's self-concept is crucially important to his choice of values and goals. The degree of his self-esteem (or lack of it) has profound impact on every key

aspect of his life.

In our society one of the most clear-cut avenues through which identity concerns are expressed is the process of making a vocational choice. This vocational choice is often the first important decision with which one is faced that will have marked effects on later experience. Forming an identity, an integral part of the developmental process, comes into focus during the late adolescent period. Because this is the time for making decisive vocational commitments, problems in making an identity frequently are seen as difficulties in choosing a vocation (Galensky, 1966).

Choosing a vocation involves a kind of public self-definition that forces one to say to the world, "This is what I am." Vocational research indicates that having a well-delineated sense of identity based on a consistent developmental history is an important requisite for choosing a life's work. Self-doubts and feelings of unworthiness make vocational decisions extremely difficult. When no firm identity has been achieved, one is constantly besieged by questions about who he is and what he can do. Often, he comes up with the answer that he cannot do anything (Galinsky, 1966).

This section contains a review of the literature relating to identity formation, self-concept, and the process of curriculum and vocational development.

The terms self-concept, self-esteem, and personal identity are

often used interchangeably. Stanley Coopersmith defines self-esteem as follows:

The self evaluation which the individual makes and customarily maintains with regard to himself; it expresses an attitude of approval or disapproval, and indicates the extent to which the individual believes himself to be capable, significant, successful, and worthy (1967:5).

Erickson (1968:8) saw identity as the relation of self and society at any age. The relation is more visible when it is disrupted such as an adolescent leaving home and entering college. The concept of identity has two factors: it refers to a person's feelings about himself and to how this self-estimate relates to estimates of him by others.

Adamek and Goudy (1966) described the identification of the self as:

. . . the process whereby the individual views himself, his capabilities and shortcomings objectively. A clear identification of self implies self-confidence and a sense of purpose. The individual knows who he is and where he is going.

Bickford (1972) described the growth of identity as a life-long process, not something settled once and for all with one decision.

The self-concept, on the other hand, has been shown to be strongly tied to one's sense of self-worth, what one is willing to try, the risks one is willing to assume, and the effort one is willing to put forth (Baird, 1973:34).

O'Neill and O'Neill (1974) stated that in the course of his or her life, each individual passes through a variety of stages. One stage

is the need for self-exploration. This stage occurs at varying points in our lives and is one where each of us experiences a need to develop and extend our interior selves. We explore our own particular inner capabilities as well as attempt to define ourselves in terms of the society in which we live.

In relation to identity, Blocher (1966:9) said that the identity structure is a psychological construct that embraces the whole constellation of self-reverent ideas, attitudes, and emotions by which an individual knows himself. Included are the ways which this self-structure is organized with respect to important others, groups, and institutions. Blocher went on to say that, "identity formation implies the development of many self-concepts, perhaps as many as there are roles and relationships of the individual (1973:9)."

Morril (1971) referred to self-concept as an individual's internal consistency of his self-evaluation.

The literature revealed that the development of a self-concept or the process of gaining a personal identity is based upon internal and external factors. We develop according to what our own inner feelings are in relation to what others say about us and how they see us. Varying results relating to curriculum and vocational development can be seen between individuals who have either high or low self-concepts.

Wigent (1973), in a study of community college students, found that individuals who have a more positive self-concept are more likely

to have made a career decision than individuals who have a less positive self-concept.

Adamek and Goudy (1966) stated that identification and the strength of self-concept are pertinent to the choice and stability of a college major. The individual must identify himself before he can effectively implement an occupational choice. The college student who is unsure of his identity is more likely to switch majors than one who feels he knows himself. An individual's occupational choice is an attempt to implement his self-concept. Identification is pertinent to the stability of choice of a college major in the sense that one identifies (or fails to identify) with his major.

In relation to vocational development, Bordin and Kopplin (1973) described the process of developing an identity as becoming aware of needs, skills, impulse-defense styles, and values.

Holland (1959) suggested that the level and range of a person's occupational choice depends upon how familiar he is with various types of occupations, how well he knows himself, and how highly he evaluates himself.

Forming an identity is one of the most important things a person can do during his high school and college years. Often, identity confusion or a lack of a clear identity result in a "generalized malaise" or lack of ability to specify clearly who one is or what he will become. The person with no clear identity or a confused identity

may be unable to make decisions relating to curriculum and occupation (Bickford, 1972).

Baird (1973:33) pointed out that self-concepts seem to be highly related to achievement in college. Also, the grades that a student earns in college are important to his self-appraisal and his study or career plans. Self-evaluations are positively related to the vocational choices of students and their vocational interests. Baird went on to state that ". . . people choose fields that are consistent with their ideas of themselves."

Goble stated that:

High self-esteem individuals tended to be characteristically more independent, creative, confident in their own judgment and ideas, courageous, socially independent (self-determining), psychologically stable, less anxious, and more success oriented. They also see themselves as competent and have high expectations for the future which generally result in greater motivation. They are generally happier and more effective in their daily life than those with low self-esteem (1970:166).

Healy (1973) conducted a study dealing with the relation of self-esteem and social class to congruence with chosen occupation. The study involved accounting majors and non-accounting business majors. It was found that high-esteem accounting majors had the highest congruence and that working class accounting majors had higher congruence than middle-class accounting majors.

Bordin and Kopplin (1973) pointed out that the college years are the period of sharpest focus in identity formation and a time when vocational choice and identity formation are intimately intertwined.

They went on to state that:

Clients with differentiated and fully operating identities (self-concepts) will integrate self-concept and vocational role better than clients with diffuse or conflict-laden identities. Qualities such as a sense of self-esteem and personal competence, the mature integration of past and present experience into one's identity, firming up in modes of self-expression and life styles, and the clarity of self-knowledge foster a productive response to vocational choice (1973).

Resnik (1970) also found a positive relationship between vocational crystallization and self-esteem in college students. The relationship between self-esteem and vocational crystallization was the same for both sexes.

Another factor influencing vocational development is the degree of harmony of an individual's self-concept (Morril, 1971).

Korman (1967) conducted a study which dealt with the relationship of need satisfaction and level of self-esteem. He found that in general:

The low self-esteem person may be more subject to the influence of others in choosing a vocational role, even though the choice is not perceived as "self-fulfilling," since "self-fulfilling" or need-satisfying states are not in "balance" for him. The low self-esteem person may evaluate a situation in terms of how he perceives others rate it and what its general social "acceptability" is rather than in terms of how the situation meets his needs. The high self-esteem individual is under "internal orientation" in that the world is evaluated according to his own desires and his own self-perceived needs in a specific situation (1967).

Leonard (1973) extended Korman's work of 1967 on the relation between self-esteem and self-consistency in vocational choice to second vocational choices. He found that persons high in self-esteem make

second vocational choices that are consistent with their personality styles more often than those that are inconsistent and that persons low in self-esteem make second choices that are consistent about as often as they make choices that are inconsistent.

Baruch (1973) examined the relationship between feminine self-esteem, self-ratings of competence, and maternal career commitment. Higher self-esteem was found for subjects who rated themselves highly on competence-related traits. It was also found that maternal preference for a career had a positive effect upon a subject's self-esteem and evaluations of their own competence. Maternal employment did not. Women were found to consistently underrate themselves in many areas as compared with both men and with their own actual abilities.

Sharf (1970) examined the importance of self-rated interests and ability in making vocational decisions. He found that self-rated interest was significantly more important than self-rated ability in choosing between two occupational alternatives.

Summary

The development or lack of development of an adequate self-concept or identity may have a great impact on the individual who is in the process of making a curriculum and vocational choice.

As the individual progresses through various stages in life, he assimilates how others perceive him and he in turn formulates his own ideas of himself. If his self-concept is accurate, that is, he has an

accurate picture of himself relating to interests, abilities, personality characteristics, etc., as well as a realistic concept of how others see him, then he is much more likely to make curriculum and vocational choices that will meet his present needs. If his self-concept is unrealistic and the level of self-esteem is low, he is more likely to make a poor choice, that is, one which is not compatible with his needs, interests, and abilities.

GOALS, VALUES, AND VOCATIONAL DEVELOPMENT OF COLLEGE STUDENTS

". . . the values and goals of Western society are in a state of transition (May, 1967:41)."

If what Rollo May said is accurate, one may wonder if the goals and values of college students have changed over the last two decades. Is there a "new student" with demands and expectations which differ radically from those who entered college ten or twenty years ago? Is there a "cultural conflict" as Glasser terms it? Are there role motivated students and goal oriented institutions (Glasser, 1972:37)? This section included a review of the literature relating to goals, values, and the possible effects the implied change had upon college students as related to curriculum and vocational development.

About 1950, the top 10 or 15 per cent of the college students began questioning the values of the Establishment and society of the Western world. At this point in time, only a relatively few persons

were involved in this endeavor, but by the early 1960's many more people were concerned with this scrutinization of the established system of values. More students and other Americans became involved in the general questioning of the Establishment attitudes on sex, work, etc. Out of this questioning emerged a set of new values (Michener, 1973).

But this critical examination and upheaval has not been without deleterious effects. Michener went on to state that, "one of the weaknesses of the revolutionary movement is that it has weakened commitment. Young people don't want to commit themselves to a marriage partner nor to a job nor to a political party (1973)."

Carl Rogers (1973) supported the concept of the "changing individual" and Glasser's (1972) comments on the individual seeking a role or identity before accepting the goals demanded by society.

The emerging modern individual places his confidence not in society's norms, nor religion's rules, nor parent's dictates, but in his own changing experience as it occurs within himself. He is, in a very deep sense, his own highest authority. He chooses his own way. The person gradually develops an increasing trust in his own capacity for making choices. He is less and less guided by "You ought to--" and "You should--" as these exhortations flood in from the external world. He takes them into account as data conveying society's wishes, but he is not ruled by them. The good life is no longer defined for us by institutions.

Rogers made similar statements twelve years earlier. He said that there is the tendency for the client to move away from the compelling image of what he "ought to be." Others find themselves moving away from what the culture expects them to be. People are rejecting the

concept of the "organization man"--that one should be fully a member of the group, should subordinate his individuality to fit into the group needs, should become "the well-rounded man who can handle well-rounded men (Rogers, 1961:168)."

May (1967:14) stated that two decades ago the external goals of society were taken more seriously than they are today. But this lack of acceptance has led to problems in the sense that people today do not know what they want. They often do not have any clear idea of their own desires or feelings. They often talk about what they should want, but it is evident that they are describing what others expect of them rather than what they themselves want.

Riesman pointed out that:

The present typical American character is "outer-directed." He seeks not to be outstanding but to "fit in"; he lives as though he were directed by a radar set fastened to his head perpetually telling him what other people expect of him. This radar type gets his motives and directions from others . . . he is able to respond but not to choose, he has no effective motivation of his own (1950:131).

Max Lerner spoke of today's youth:

Students on college campuses are moving away from the frenetic activism of the 1960's to the rediscovery of the self. Some of the young still opt out of college and career, but most are combining career with a new self-reliance. They have a distaste for hypocrisy, and their insistence of the authentic is the best heritage from the values revolution which began in the '60s. Their lifestyle is what differentiates them from the older generation (1974).

The young want more freedom and mobility. They tend to wait before committing themselves to marriage and career.

Alienation, the search for identity, new goals, new values, self-determination--what effect did these processes have upon college students and their ability to make curriculum and vocational choices?

Austin and Nichols (1964) said that there are great differences in the goals toward which people in different career groups are striving. It is likely that life goals are important determiners of career choice and of satisfaction with the career choice once a choice is made.

Warnath and Fordyce (1961), in testing the values of freshmen declaring different majors, were able to differentiate between them. It appeared that students came to college with different value orientations, and these were translated into a choice of major. They felt that attitudes and values had a greater impact upon the success of the student in college than did his academic abilities.

Calvert (1970) in a follow-up of liberal arts graduates found that most graduates selected their career goals after graduation from college. The majority of the graduates said that college training is most useful as it equips for life--not a particular job.

Richards (1966) studied the life-goals of male and female college freshmen. He found seven factors which were common to the two sexes: prestige, personal happiness, humanistic-cultural, religious, scientific, artistic, and hedonistic. An Altruistic factor was isolated for females only, and an Athletic Success factor for males only.

Hoffman and Hoeflin (1972) investigated the after college goals of community college and university women. Responses and percents, respectively, included: travel and adventure, 37 per cent; career and work, 24 per cent; marriage and family, 12 per cent; involvement in social issues, 9 per cent; marriage and career, 5 per cent; other, 4 per cent; continue education, 1 per cent; no response, 1 per cent. In general, college women of today were anxious to assert their individuality and desired more than one goal in the future.

In a study of 172 undergraduates, Greenhaus and Ribaud (1972) isolated three primary factors based upon a set of 20 college goals. Factor one was an intellectual-social dimension of college goals. Factor two was composed of career preparation items involving external referents. Factor three was a more goal-directed career preparation dimension. They recommended research relating to background variables and the importance of particular goals.

Hammond (1956) developed the Occupational Attitude Rating Scale which has been used to explore the occupational expectations and personal values of college students. Four factors of need have been developed. Factor A is based upon economic-status-need. Choice of an occupation and attendance at a college itself seem to be the means to higher income. Factor B is based upon personal-status-need. Recognition for achievement and freedom from restraint are important. Choice of an occupation and attendance at a college seem to be the means to proving

their superiority, perhaps to themselves. Factor C is based upon structure need. Security in detail, method, and system are important. Individuals who score high on this factor are not dependent upon people for their major satisfaction. Factor D is based upon acceptance need. These individuals are interested in helping others and in serving a useful purpose in society. They are dependent upon people for their major satisfactions.

In general, people scoring high on Factor A had a preference for business careers. People interested in journalism, drama, and the fine arts scored high on Factor B. People scoring high on Factor C indicated interests in the natural sciences and application of knowledge. People preferring careers in the social sciences scored high on Factor D.

Baird (1973) reported on the characteristics and plans of college seniors who graduated in 1971. He stated that each field seems to be getting the same kind of students it got ten years ago. Seniors in this study chose the same work values as did the senior students of ten years ago. The basic similarities make one wonder how much change there really has been. Baird went on to state that:

. . . the social trends of recent years have had only small effects on most seniors. However, it would seem that some students may have been strongly affected by the changes in society in the ways we suggested at the outset. It may be that this small group of idealistic pragmatic students are more common today than in earlier years. It is also probably this small portion of students that is the basis for journalistic accounts of the "new student" (1973:201).

Summary

The literature revealed that a student's goals, values, attitudes, etc. have a definite impact upon the curriculum and vocation that he chooses. A given vocation seems to attract a particular type of person who shares with others in that field similar values, goals, expectations, and attitudes to many aspects of life.

Not all authors are in agreement as to whether or not there is a "new student." Most authors agreed that there has been a general shifting of values relating to marriage, family, jobs, and sex, but the extent and full impact of this shift is not agreed upon. Several of the studies revealed that specific vocational areas are getting students similar in values and goals as were the students of ten to fifteen years ago.

SUMMARY

This chapter contained a review of selected literature relating to personality and vocational development among college students and the relationship of their development and direction of motivation, role or goal, to the process of curriculum and vocational choice.

The focus of the literature review was upon four areas:

- (1) personality and vocational development among college students;
- (2) differences between vocationally decided and undecided students;
- (3) self-concept, identity, and vocational development; and (4) goals,

values, and vocational development of college students.

The summary of the literature relating to personality and vocational development among college students indicated that curriculum and vocational choice is not a single decision at a given point in time but a developmental process that takes place over a number of years.

Many factors, both intrinsic and extrinsic, affect the curriculum and vocational choices that college students make. Family background, job and school experiences, friends, and sex of the student all play a part in the choice. The individual's personality characteristics, needs, etc. also influence the decisions which are made and at which age these decisions are made.

The choices made during the first two years at college are quite tentative. Students often make one or two changes of curriculum before making a final commitment to a major field of study. It appeared that many students are entering college with a limited background and limited experiences and need the first year or two for personal and curriculum exploration.

The literature relating to differences between vocationally decided and undecided students revealed differences in some studies while other studies indicated few or no differences.

In general, the vocationally undecided group of college students are quite heterogeneous in nature. Several studies indicated that undecided students, as a group, leaned toward the social sciences.

and humanities curricula. They exhibited more aggressive, sociable, and feminine characteristics than did the decided students. There seemed to be no significant sex differences between the decided and undecided students. Little difference was revealed in academic performance or ability but the undecided students tended to be more intellectually oriented. A few studies indicated specific personality differences such as levels of personal achievement desired and motivation toward work, with the undecided being less motivated but more achievement oriented. There seemed to be no differences in levels of alienation or cultural estrangement between the two groups.

A large portion of the difference between the vocationally decided and undecided seemed to be accounted for by the differential rates of personal and vocational development. Some college freshmen are more capable than others of making a curriculum or vocational choice because they are at a stage in their development where they have the background, personal, and environmental data necessary to make an adequate choice.

The development of lack of development of an adequate self-concept or identity may have a great impact on the individual who is in the process of making a curriculum and vocational choice.

As the individual progresses through various stages in life, he assimilates how others perceive him and he, in turn, formulates his own ideas of himself. If his self-concept is accurate, that is, he has

an accurate picture of himself relating to interests, abilities, personality characteristics, etc., as well as a realistic concept of how others see him, then he is much more likely to make curriculum and vocational choices that will meet his present needs. If his self-concept is unrealistic and the level of self-esteem is low, he is more likely to make a poor choice, that is, one which is not compatible with his needs, interests, and abilities.

The literature revealed that a student's goals, values, attitudes, etc. have a definite impact upon the curriculum and vocation that he chooses. A given vocation seems to attract a particular type of person who shares with others in that field similar values, goals, expectations, and attitudes to many aspects of life.

Not all authors are in agreement as to whether or not there is a "new student." Most authors agreed that there has been a general shifting of values relating to marriage, family, jobs, and sex, but the extent and full impact of this shift is not agreed upon. Several of the studies revealed that specific vocational areas are getting students similar in values and goals as were the students of ten to fifteen years ago.

Chapter 3 describes the procedures carried out in conducting this study. Included are descriptions of the community and population, methodology and types of data collected, hypotheses, and how the data are to be analyzed.

Chapter 3

PROCEDURES

The purpose of this study was to investigate whether freshmen students at Montana State University could be grouped as either role motivated or goal motivated and what effect their direction of motivation might have upon the process of curriculum and vocational choice.

The development of this chapter followed these guidelines:

1. A description of the community
2. A description of the population
3. The sampling procedure
4. Types of data collected
5. Method of collecting data
6. Functional definitions
7. Hypotheses
8. Analysis of the data

COMMUNITY DESCRIPTION

Montana State University was established by the Montana legislature on February 16, 1893. It was originally called the Agricultural College of the State of Montana at Bozeman.

The 1,170 acre campus of Montana State University, consisting of more than 40 major buildings, is situated on the outskirts of Bozeman, Montana, a city of approximately 20,000.

Montana State University started as a small, land-grant college stressing agriculture and engineering. It has since become a full-scale university offering widely diversified fields of study ranging from art to zoology. The University bulletin lists programs leading to bachelors degrees in more than 44 fields covering some 119 separate majors, masters degrees in 31 different areas, and doctorates in 19 areas.

The University is the state center for instruction in agriculture, commerce, engineering, nursing, and the biological and physical sciences (MSU Office of Information, 1973a).

Undergraduate instruction at the University is administered through five colleges. The College of Professional Schools is the largest of these with approximately 31 per cent of the total enrollment; then Letters and Science with 26 per cent; Engineering with 14 per cent; Education with 8 per cent; and Agriculture with 11 per cent. Ten per cent of Montana State University students enroll in the General Studies program (MSU Office of Information, 1973b).

DESCRIPTION OF THE POPULATION

The population for this study consisted of 131 freshmen representing the five Colleges and General Studies. One hundred and thirteen of the subjects were enrolled in Psychology 103, General Psychology, during the Winter Quarter, 1974. These students were offered extra credit by the two professors of this course for their participation in

the research study. The other eighteen students were selected at random from the curriculum lists for the College of Agriculture and the College of Engineering in an attempt to get proportionate representation from these two Colleges. (See Table 1 for the population distribution by College.)

Table 1
Population Distribution by College

College	Total Freshmen Enrollment Winter Quarter, 1974		Participants in Study	
	Number	Per cent	Number	Per cent
General Studies	531	21	24	18
Agriculture	307	12	10	8
Education	122	5	15	11
Engineering	296	12	14	11
Letters and Science	490	19	26	21
Professional Schools	778	31	42	31
Totals	2,524	100	131	100

The Office of the Registrar at Montana State University prepares a curriculum list of all students enrolled in the University at the beginning of each quarter. Data included on the curriculum list are name, Social Security number, curriculum number, class, and sex.

During the Winter Quarter, 1974, there was a total of 309

freshmen enrolled in the two sections of General Psychology. One hundred and thirty-one, or 42 per cent, of the eligible population reported for the testing sessions.

THE SAMPLING PROCEDURE

The group of freshmen included in this study was drawn through a combination of random and incidental samples. The 131 freshmen who volunteered from the two sections of General Psychology could be termed as incidental samples, as they were taken partly on the basis of availability. Guilford and Fruchter (1973:125) stated that many psychological studies have been made utilizing students in beginning psychology merely because they are most convenient. They stress the point that results thus obtained can be generalized beyond such groups with some risk.

The eighteen students who responded from the Colleges of Agriculture and Engineering were selected randomly from the curriculum list supplied by the Office of the Registrar. They were selected in such a manner that every individual in the population had an equal chance of being chosen and that the selection of any one individual was in no relevant way tied to the selection of any other (Guilford and Fruchter, 1973:122).

TYPES OF DATA COLLECTED

Data pertaining to demographic background, personality characteristics, self-concept, and educational-vocational goals and values was gathered on all of the subjects participating in the study.

Demographic data was collected from the records at Montana State University. The two instruments administered for the collection of data relating to personality characteristics, self-concept, and educational goals and values were the California Psychological Inventory (Gough, 1956) and the Survey of Student Interests and Values which was developed by the investigator. (A copy of the Survey of Student Interests and Values is in Appendix B, pages 221 through 227.)

Demographic Data

Demographic data included information pertaining to high school attended, academic aptitude, major field of study, high school academic performance, university academic performance, and sex.

The high school attended was classified according to the system used by the Montana High School Association. Four classes are used: AA, A, B, and C. The classes are determined by current school enrollments and athletic accomplishments from the past years. In general, the 14 Class AA schools are the largest high schools in Montana with enrollments ranging to over 3,000. The ninety-nine Class C schools are the smallest schools in the state. The Class A and B schools are

intermediate in size.

Academic aptitude included quantitative and verbal stanine scores of scholastic aptitude tests taken for admission purposes at Montana State University. Quantitative scores were those scores from the Scholastic Aptitude Test (SAT) Math test or the American College Test (ACT) Arithmetic test. Verbal scores were from the SAT Verbal Test, ACT Composite score, or the verbal score from the Ohio Psychological Inventory.

The high school academic performance was reported as a total grade-point average as computed by the Testing and Counseling Service at Montana State University. This grade-point average based on a four-point scale is referred to as the University Computed High School Grade-Point Average (UCHSGPA). The UCHSGPA is determined by the following criteria:

1. A grade average is computed for all English courses taken during the junior and senior year in high school. These courses include English, speech, journalism, creative writing, and the like.
2. A grade average is computed for social studies taken during the last two years in high school. These classes include history (all forms), special problems, problems of American democracy, logic, sociology, psychology, and so forth.
3. A grade average is computed for the semesters of chemistry taken in high school.
4. A grade average is computed for the semesters of physics taken in high school.
5. A grade average is computed for all the commercial courses taken during high school. This includes typing I, typing II, bookkeeping, shorthand, office practice and the like.
6. A grade average is computed for any vocational courses that are taken in high school. These include industrial arts, vocational agriculture, and so forth.

7. A grade average is computed for semesters of language taken during the entire four years of high school.

8. A grade average is computed for algebra courses that are taken in high school.

9. A grade average is computed for the trigonometry, solid geometry, and advanced courses that are taken in high school.

10. A total grade point average . . . computed by averaging the grade point averages of the above subject matter areas (Suvak, 1966).

The subject's major field of study was reported on the Survey and coded according to the system used by the University. University academic performance included the cumulative grade-point average through Winter Quarter, 1974. The subject's sex was also indicated on the Survey of Student Interests and Values.

Personality Characteristics and Self-Concept

The California Psychological Inventory (CPI) was administered to assess the personality characteristics and level of self-concept. The scales are grouped for convenience into four broad categories, bringing together scales having similar implications. The logic for this grouping is interpretational and not statistical (Gough, 1969:5). Class I: Measures of Poise, Ascendancy, Self-Assurance, and Interpersonal Adequacy was used to assess levels of self-concept among the subjects; Class II: Measures of Socialization, Maturity, Responsibility, and Intrapersonal Structuring of Values; Class III: Measures of Achievement Potential and Intellectual Efficiency; and Class IV: Measures of Intellectual and Interest Modes were used to assess the

personality characteristics of the subjects.

The California Psychological Inventory (CPI) is intended for diagnosis and evaluation of individuals, with emphasis upon interpersonal behavior and dispositions relevant to social interaction (Gough, 1968:1).

The CPI contains 480 true-false items, which can be administered either individually or in group testing. The items are printed in an eleven-page booklet, and a special answer sheet is used. The subject reads each item, decides whether he agrees or disagrees with what is said, and then marks "true" or "false" on the answer sheet. If a subject prefers not to answer certain items, he may leave them blank. Testing time, including the reading of instructions, is ordinarily a class hour in schools and colleges (Gough, 1968:1).

The CPI is scaled and profiled for eighteen variables. Items in each scale are assigned unit weights (0-1), and raw scores are converted to standard scores (separate norms for males and females) with means of fifty and standard deviations of ten. The purpose of each scale is to predict what an individual will do in a specified context, and/or to identify individuals who will be described in a certain way (Gough, 1968:2).

Following are the eighteen scales divided into the four classes with descriptions of the purpose of each scale (Gough, 1969:10-11).

Class I. Measures of Poise, Ascendency, Self-Assurance, and Interpersonal Adequacy

1. Do (dominance) To assess factors of leadership ability, dominance, persistence, and social initiative.
2. Cs (capacity for status) To serve as an index of an individual's capacity for status (not his actual or achieved status). The scale attempts to measure the personal qualities and attributes which underlie and lead to status.
3. Sy (sociability) To identify persons of outgoing, sociable, participative temperament.
4. Sp (social presence) To assess factors such as poise, spontaneity, and self-confidence in personal and social interaction.
5. Sa (self-acceptance) To assess factors such as sense of personal worth, self-acceptance, and capacity for independent thinking and action.
6. Wb (sense of well-being) To identify persons who minimize their worries and complaints, and who are relatively free from self-doubt and disillusionment.

Class II. Measures of Socialization, Maturity, Responsibility, and Intrapersonal Structuring of Values.

7. Re (responsibility) To identify persons of conscientious, responsible, and dependable disposition and temperament.
8. So (socialization) To indicate the degree of social maturity, integrity, and rectitude which the individual has attained.
9. Sc (self-control) To assess the degree and adequacy of self-regulation and self-control and freedom from impulsivity and self-centeredness.
10. To (tolerance) To identify persons with permissive, accepting, and non-judgmental social beliefs and attitude.
11. Gi (good impression) To identify persons capable of creating a favorable impression, and who are concerned about how others react to them.
12. Cm (communality) To indicate the degree to which an individual's reactions and responses correspond to the modal ("common") pattern established for the inventory.

Class III. Measures of Achievement Potential and Intellectual Efficiency

13. Ac (achievement via conformance) To identify those factors of interest and motivation which facilitate achievement

in any setting where conformance is a positive behavior.

14. Ai (achievement via independence) To identify those factors of interest and motivation which facilitate achievement in any setting where autonomy and independence are positive behaviors.

15. Ie (intellectual efficiency) To indicate the degree of personal and intellectual efficiency which the individual has attained.

Class IV. Measures of Intellectual and Interest Modes

16. Py (psychological-mindedness) To measure the degree to which the individual is interested in, and responsive to, the inner needs, motives, and experiences of others.

17. Fx (flexibility) To indicate the degree of flexibility and adaptability of a person's thinking and social behavior.

18. Fe (femininity) To assess the masculinity or femininity of interests. (High scores indicate more feminine interests, low scores more masculine.)

Reliability of Scales

Gough (1969:11-20) reported the results of two test-retest reliability studies involving the CPI. One group was composed of 226 high school students, the other group included 200 male prisoners. The high school students took the CPI first as juniors then a year later as seniors. The 200 male prisoners took the test twice with a lapse of from seven to twenty-one days between testings. Table 2, page 62, presents the test-retest correlations of these two studies (Gough, 1969:19).

Table 2

Test-Retest Correlations

Scale	High School Females (N=125)	High School Males (N=101)	Prison Males (N=200)
Do	.72	.64	.80
Cs	.68	.62	.80
Sy	.71	.68	.84
Sp	.63	.60	.80
Sa	.71	.67	.71
Wb	.72	.71	.75
Re	.73	.65	.85
So	.69	.65	.80
Sc	.68	.75	.86
To	.61	.71	.87
Gi	.68	.69	.81
Cm	.44	.38	.58
Ac	.73	.60	.79
Al	.57	.63	.71
Ie	.77	.74	.80
Py	.49	.48	.53
Fx	.67	.60	.49
Fe	.65	.59	.73

Validity of Scales

Most of the scales were derived and cross-validated using large samples of high school and college students. While norms are available on a variety of groups, the CPI is most applicable to students and young adults, not only because the larger size of these samples provides more stable normative data, but also because the language and content of the items is more relevant to younger groups. Gough's approach to test construction emphasized the building of scales for the purpose of

predicting socially relevant behavior patterns. As a result, the development and validation of the CPI has aimed at maximizing predictive and concurrent validity even at the expense of other test attributes such as factorial purity and discriminant validity. The failure of some CPI scales to have the latter attributes is of more concern to personality researchers who wish to use the CPI for trait measurement than it is to those who wish to predict practical criteria, such as the likelihood a student will be graduated from high school (Megargee, 1972:33).

Summary of the CPI

A review of several editions of Buros Mental Measurements Yearbooks provided the investigator with several opposing points of view regarding the usefulness of the CPI.

J. A. Walsh in a preview of the CPI stated:

Overall, the reviewer cannot recommend the CPI except possibly for the most purely empirical purposes. Its criterion-oriented mode of construction severely limits its generality and psychological meaningfulness. Much of its case for validity is based upon a circular mode of reasoning which is self-defeating. The CPI norm groups are large and varied, but reliabilities are quite modest. There is a possibility of response set contamination for several of the scales, and there is also a great deal of overlap with other inventories. Either the 16 PF or the EPPS would probably serve as well as the CPI in most prediction situations, and in addition, the scales of the former inventories possess the advantages of greater generality and clearer psychological meaning (Buros, 1959:96-97).

L. J. Cronbach stated that the development and technical work of the CPI are of a high order. The reliabilities were carefully

determined by retesting but the usefulness of this instrument was still in question (Buros, 1959:97-99).

R. L. Thorndike described the CPI as the "sane Man's MMPI." He went on to mention that the eighteen scales provide a very redundant, inefficient, and confused picture of individual personalities. Correlations between many of the scales are high. Biserial correlations are reported for extreme groups, leaving out a large middle group. The resulting coefficients are grossly inflated (Buros, 1959:99).

Attitudes toward the usefulness of the CPI improved as the instrument became more widely used and researched.

E. L. Kelly stated that:

The CPI in this reviewer's opinion is one of the best, if not the best, available instrument of its kind. It was developed on the basis of a series of empirical studies and the evidence for the validity of its several scales is extensive. The manual is one of the most complete of any available and reports intercorrelations of CPI scores with those of several other widely used tests (Buros, 1965:168-170).

L. R. Goldberg, in his review of the CPI, pointed out that both the assets and liabilities of the CPI closely parallel those of the MMPI and the SVIB. The CPI shares with the MMPI and the SVIB one overriding virtue: they are among the very small set of personality inventories for which enough empirical research has accumulated to allow the user to evaluate the probable utility of his predictions in industry, clinical, and educational settings (Buros, 1972:94-96).

In general, the CPI, as with other personality inventories, has

both assets and limitations. The users of this instrument should recognize these limitations and take them into consideration when using this instrument in his research. This investigator felt that the CPI possessed the necessary characteristics which would be useful in this particular research study.

Educational-Vocational Goals and Values

The Survey of Student Interests and Values was administered to assess the subjects educational and vocational goals and values. Seventeen items on the Survey related to personal philosophy, goals, and values toward college and vocations. Five items were used for the purpose of classifying subjects as either role or goal motivated and six items were used for identification purposes.

The Survey consisted of twenty-eight multiple choice items. Six of the items were multiple response and the rest were single response, that is, they were to mark only a single answer rather than several answers. The subjects were allowed twenty minutes to complete the instrument.

Reliability

Test-retest reliability was established through administration of the Survey in two sections of Educational Psychology at Montana State University during Winter Quarter, 1974. The Survey was administered to a total of sixty-two students in these classes. One week lapsed between

administrations.

Correlation coefficients ranged from a low of .38 on the item dealing with a personal philosophy of higher education to a high of 1.00 relating to the sex of the student. In general, the highest correlations were found on the single response items and the lowest correlations on the multiple choice response items dealing with values.

Validity

The validity established for the Survey of Student Interests and Values is primarily content validity. Upon the completion of the development of the instrument, three professionals in the field of psychological measurement examined the instrument and compared it to the stated goals of the study in order to determine if the needed data would be adequately collected and assessed. Minor revisions were made upon suggestion of the examiners and the Survey was then administered to the study population.

METHOD OF COLLECTING DATA

The investigator contacted the subjects directly through the General Psychology classes. The purpose of the investigation was explained and the subjects were told when and where to report. The subjects in the College of Agriculture and College of Engineering were contacted by letter. (See Appendix A, page 220, for a copy of the letter.) Both the direct presentation and the letter to the subjects

in the College of Agriculture and the College of Engineering contained the same information.

One hundred and fifty-seven subjects reported for the administration of the instruments. Twenty-six of these subjects were not freshmen, therefore, their data was not used in this investigation. First the Survey of Student Interests and Values and then the California Psychological Inventory were administered.

Additional data was collected from University records for the 131 subjects who completed the 2 instruments. The booklet "Montana State University Placement Test Scores and Indices" (1973) provided data relating to high school attended, high school grade-point average as computed by the Testing and Counseling Service, and quantitative and verbal scores of scholastic aptitude tests taken for admission purposes at Montana State University. The student's cumulative grade-point average through Winter Quarter, 1974 was obtained from the offices of the Deans of the Colleges.

FUNCTIONAL DEFINITIONS

Subjects were to be classified as either role motivated or goal motivated using the following criteria.

A. Curriculum choice or lack of curriculum choice

Role Motivated. A student was classified as role motivated if:

1. he indicated that he was in General Studies.

2. he indicated that he was having some or considerable difficulty in making up his mind about what field to major in.

Goal Motivated. A student was classified as goal motivated if:

1. he indicated a specific curriculum choice.
2. he indicated little or no difficulty in selecting a major field of study.

B. University Academic Performance

Role Motivated. A student was classified as role motivated if his cumulative grade-point average was below the mean for the study population.

Goal Motivated. A student was classified as goal motivated if his cumulative grade-point average was above the mean for the study population.

C. Development of Vocational Plans

Role Motivated. A student was classified as role motivated if:

1. he indicated a lack of tentative vocational plans for after college.
2. he indicated that he was undecided as to vocational choice.

Goal Motivated. A student was classified as goal motivated if:

1. he indicated definite vocational plans for after college.
2. he indicated a probable vocational choice.

D. Composite Role-Goal Motivation Profile

As few students would respond completely role or goal motivated

on the five items, it was decided that a student must respond to a majority or to three items in one direction or another to be classified as either role or goal motivated.

These definitions were specifically designed for the purposes of this particular study. The basic concepts of motivation, role and goal, were provided by Glasser (1972) in his latest book, The Identity Society. The functional definitions for this study were developed around these concepts using the data which was collected for the study.

HYPOTHESES

The purpose of this study was to first classify freshmen students at Montana State University as either role motivated or goal motivated. Once the students were classified, they were examined to determine if there were any differences relating to personality characteristics, self-concept, educational-vocational goals and values, high school attended, academic aptitude, major field of study, high school academic performance, and sex.

The hypotheses were grouped into three categories:

1. Personality characteristics and self-concept as measured by the California Psychological Inventory.
2. Educational-vocational goals and values as assessed by the Survey of Student Interests and Values.
3. Demographic data which included high school attended,

academic aptitude, major field of study, high school academic performance, and sex.

The following null hypotheses were developed relating to the purposes of this study.

Hypotheses Relating to Personality
Characteristics and Self-Concept

1. There is no significant difference in self-concept on the CPI as measured by Class I: Measures of Poise, Ascendancy, Self-Assurance, and Interpersonal Adequacy between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

2. There is no significant difference in personality characteristics on the CPI as measured by Class II: Measures of Socialization, Maturity, Responsibility, and Intrapersonal Structuring of Values between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

3. There is no significant difference in personality characteristics on the CPI as measured by Class III: Measures of Achievement Potential and Intellectual Efficiency between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

4. There is no significant difference in personality characteristics on the CPI as measured by Class IV: Measures of Intellectual and Interest Modes between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Hypotheses Relating to Educational-
Vocational Goals and Values

5. There is no significant difference in item 8, the most important reason for going to college, between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance

- c. Development of vocational plans
- d. Composite role-goal motivation profile

6. There is no significant difference in item 9, the degree of satisfaction with their present curriculum between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

7. There is no significant difference in item 12, the attitude toward college grades between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

8. There is no significant difference in item 13, the highest academic degree aspirations, between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

9. There is no significant difference in item 14, future educational plans, between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

10. There is no significant difference in item 16, future occupational plans, between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

11. There is no significant difference in item 17, personal philosophies of higher education, between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

12. There is no significant difference in item 18, the time of life when occupational goals were decided, between students who are

classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

13. There is no significant difference in item 20, amount of responsibilities desired in their occupation, between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

14. There is no significant difference in item 21, college expectations, between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

15. There is no significant difference in item 22, attitudes toward present and future planning, between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice

- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

16. There is no significant difference in item 23, the number of times that vocational plans have been changed, between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

17. There is no significant difference in item 24, the factors influencing career decisions, between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

18. There is no significant difference in items 25-36, factors influencing decisions to attend this particular college, between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

19. There is no significant difference in items 37-49, personal objectives between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

20. There is no significant difference in items 50-62, areas of receiving greatest personal satisfaction at college, between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

21. There is no significant difference in items 63-74, reasons felt important in selecting a life career, between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Hypotheses Relating to
Demographic Data

22. There is no significant difference in the type of high school attended between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

23. There is no significant difference in high school academic performance between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

24. There is no significant difference in academic ability as measured by college entrance examinations between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

25. There is no significant difference in choice of major field of study between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

26. There is no significant difference in sex between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. Academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

ANALYSIS OF THE DATA

Due to the nature of the data collected in this study, three statistical methods of analysis were used.

A portion of the data, such as high school academic performance (grade-point average) and academic ability on college entrance examinations (stanine scores) most readily lent itself to analysis using the t test of a difference between means. The four categories of the CPI were tested using an analysis of variance and the F test. Other data collected in the research study was analyzed using the chi-square test. All data was tested at the .05 level of significance.

SUMMARY

This chapter was devoted to a description of the community and study population, instruments used, hypotheses to be tested, methodology and types of data collected, and how the data was to be analyzed.

Data pertaining to demographic background, personality characteristics, self-concept, and educational-vocational goals and values was gathered on 131 freshmen students enrolled at Montana State University during Winter Quarter, 1974.

These students were to be classified as either role motivated or goal motivated based upon (1) curriculum choice or lack of curriculum choice, (2) university academic performance, (3) development of vocational plans, and (4) composite role-goal motivation profile.

A student was classified as role motivated if he was in General Studies and indicated that he was having difficulty in making up his mind about what field to major in, if his cumulative grade-point average was below the mean for the study population, and he was undecided as to vocational choice and lacked even tentative post-college plans.

A student was classified as goal motivated if he indicated a specific curriculum choice, his grade-point average was above the mean for the study population, and he had definite post-college plans and indicated a vocational choice.

Once the students were classified, they were examined to determine if there were any differences relating to personality

characteristics, self-concept, educational-vocational goals and values, high school attended, academic aptitude, major field of study, high school academic performance, and sex.

Personality characteristics and self-concept were measured by the California Psychological Inventory. Educational-vocational goals and values were assessed by the Survey of Student Interests and Values. Demographic data collected from Montana State University records included high school attended, academic aptitude, major field of study, high school academic performance, and sex.

Hypotheses were grouped into three categories: (1) personality characteristics and self-concept; (2) educational-vocational goals and values; and (3) demographic data. All hypotheses were tested at the .05 level of significance.

Chapter 4 presents an analysis of the data collected in this study.

Chapter 4

ANALYSIS AND RESULTS

The analysis and results of this study are presented in this chapter under the categories of (1) personality characteristics and self-concept, (2) educational-vocational goals and values, and (3) demographic data.

All hypotheses were tested at the .05 level of significance by using either the chi square test, the t-test for testing the significance of the difference between means, or the least-squares analysis of variance.

Data was collected and processed on a total of 131 freshmen students representing General Studies and the five academic colleges on the Montana State University campus.

The subjects were classified as either role motivated or goal motivated using the following criteria:

A. Curriculum choice or lack of choice

Role Motivated. A student was classified as role motivated if:

1. he indicated that he was in General Studies
2. he indicated that he was having some or considerable difficulty in making up his mind about what field to major in.

Goal Motivated. A student was classified as goal motivated if:

1. he indicated a specific curriculum choice.
2. he indicated little or no difficulty in selecting a major field of study.

Table 3 presents the numerical data for this classification.

Table 3

Classification of Students Based Upon
Curriculum Choice or Lack of Choice

Classification	Motivation	
	Role	Goal
In General Studies and Had Difficulty Choosing a Major	16	--
In General Studies and Had No Difficulty Choosing a Major	8	--
Not in General Studies and Had Difficulty in Choosing a Major	45	--
Not in General Studies and Had No Difficulty in Choosing a Major	--	62
Total	69	62

All students in General Studies were classified as role motivated regardless of whether they did or did not have difficulty making a choice of major.

Those students not in General Studies who were having difficulty choosing a major field of study were classified as role motivated. The

remaining students were classified as goal motivated.

B. University Academic Performance.

Role Motivated. A student was classified as role motivated if his cumulative grade point average was below the mean for the study group.

Goal Motivated. A student was classified as goal motivated if his cumulative grade point average was above the mean for the study group.

The mean University grade point average was computed to be 2.84, based upon a four-point scale.

Table 4 presents the numerical data for the classification of students by motivation and sex.

Table 4

Classification and Sex of Students Based
Upon University Academic Performance

Classification	Sex	
	Male	Female
Role	31	31
Goal	22	47
Total	53	78

C. Development of Vocational Plans

Role Motivated. A student was classified as role motivated

if:

1. he indicated a lack of tentative vocational plans for after college.
2. he indicated that he was undecided as to vocational choice.

Goal Motivated. A student was classified as goal motivated

if:

1. he indicated definite vocational plans for after college.
2. he indicated a probable vocational choice.

Using these criteria, there were 20 students classified as role motivated and 111 students classified as goal motivated.

D. Composite Role-Goal Motivation Profile

A student was classified as role or goal motivated by responding to a majority of the items in one direction or the other. There were 48 students classified as role motivated and 83 students classified as goal motivated.

Hypotheses Relating to Personality Characteristics and Self-Concept

The null hypotheses relating to the four classes of the California Psychological Inventory follow. All were tested at the .05 level of significance using the least-squares analysis of variance. The critical F values for 1 degree of freedom and infinity was 3.84, for 2 degrees of freedom and infinity 2.99, and for 5 degrees of freedom and

infinity 2.21 (Roh1 and Sokal, 1969).

Null hypothesis 1. There is no significant difference in self-concept on the CPI as measured by Class I: Measures of Poise, Ascendency, Self-Assurance, and Interpersonal Adequacy between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 5 through 8 present the analysis of variance results for Class I of the CPI.

Table 5

Least-Squares Means and Analysis of Variance for Curriculum Choice or Lack of Choice for the CPI Class I

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Dominance	69	24.16	62	26.63
Capacity for Status	69	17.41	62	17.69
Sociability	69	22.89	62	23.81
Social Presence	69	35.78	62	34.19
Self-acceptance	69	21.49	62	21.42
Sense of Well-being	69	33.51	62	33.55

Table 5 (continued)

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	5	30941.80	6188.35	213.24*
Groups	1	22.73	22.73	.78
Subtests X Groups	5	288.73	57.74	1.99
Remainder	774	22462.18	29.02	

* Significant at the .05 level

Since the computed F value of 213.24 was greater than the critical value of 2.21, the null hypothesis that there was no significant difference among the six subtests of the CPI Class I was rejected.

Since the computed F value of .78 was less than the critical value of 3.84, the null hypothesis that there was no significant difference between the groups, role and goal, in their responses to the CPI Class I was not rejected.

Since the computed F value of 1.99 was less than the critical value of 2.21, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class I was not rejected.

Table 6

Least-Squares Means and Analysis of Variance for University
Academic Performance for the CPI Class I

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Dominance	62	24.73	69	25.87
Capacity for Status	62	16.94	69	18.09
Sociability	62	22.82	69	23.78
Social Presence	62	34.94	69	35.11
Self-acceptance	62	21.10	69	21.78
Sense of Well-being	62	32.42	69	34.52

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	5	31075.54	6215.10	213.83*
Groups	1	210.83	210.83	7.25*
Subtests X Groups	5	66.04	13.20	.45
Remainder	774	22496.75	29.06	

* Significant at the .05 level

Since the computed F value of 213.83 was greater than the critical value of 2.21, the null hypothesis that there was no significant difference among the six subtests of the CPI Class I was rejected.

Since the computed F value of 7.25 was greater than the critical

value of 3.84, the null hypothesis that there was no significant difference between the groups, role and goal, in their responses to the CPI Class I was rejected.

Since the computed F value of .45 was less than the critical value of 2.21, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class I was not rejected.

Table 7

Least-Squares Means and Analysis of Variance for Development of Vocational Plans for the CPI Class I

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Dominance	20	21.70	111	25.98
Capacity for Status	20	17.35	111	17.57
Sociability	20	21.50	111	23.65
Social Presence	20	35.80	111	34.89
Self-acceptance	20	20.90	111	21.56
Sense of Well-being	20	32.60	111	33.69

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	5	16910.59	3382.10	117.17*
Groups	1	159.31	159.31	5.52*
Subtests X Groups	5	272.76	54.55	1.89
Remainder	774	22341.62	28.86	

* Significant at the .05 level

Since the computed F value of 117.16 was greater than the critical value of 2.21, the null hypothesis that there was no significant difference among the six subtests of the CPI Class I was rejected.

Since the computed F value of 5.52 was greater than the critical value of 3.84, the null hypothesis that there was no significant difference between the groups, role and goal, in their responses to the CPI Class I was rejected.

Since the computed F value of 1.89 was less than the critical value of 2.21, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class I was not rejected.

Table 8

Least-Squares Means and Analysis of Variance for the
Composite Profile for the CPI Class I

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Dominance	48	24.04	83	26.07
Capacity for Status	48	17.36	83	17.49
Sociability	48	23.13	83	23.45
Social Presence	48	35.89	83	34.53
Self-acceptance	48	21.25	83	21.58
Sense of Well-being	48	34.25	83	33.11

Table 8 (continued)

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	5	29727.64	5945.52	204.12*
Groups	1	.00	.00	.00
Subtests X Groups	5	228.67	45.73	1.57
Remainder	774	22544.93	29.12	

* Significant at the .05 level

Since the computed F value of 204.12 was greater than the critical value of 2.21, the null hypothesis that there was no significant difference among the six subtests of the CPI Class I was rejected.

Since the computed F value of .00 was less than the critical value of 3.84, the null hypothesis that there was no significant difference between the groups, role and goal, in their responses to the CPI Class I was not rejected.

Since the computed F value of 1.57 was less than the critical value of 2.21, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class I was not rejected.

Null hypothesis 2. There is no significant difference in personality characteristics on the CPI as measured by Class II: Measures of Socialization, Maturity, Responsibility, and Intrapersonal

Structuring of Values between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 9 through 12 present the analysis of variance results for Class II of the CPI.

Table 9

Least-Squares Means and Analysis of Variance for Curriculum Choice or Lack of Choice for the CPI Class II

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Responsibility	69	26.25	62	26.53
Socialization	69	34.90	62	35.63
Self-control	69	24.64	62	24.03
Tolerance	69	20.91	62	20.06
Good impression	69	13.12	62	14.03
Communality	69	25.03	62	25.05

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	5	33257.77	6651.55	208.06*
Groups	1	1.35	1.35	.04
Subtests X Groups	5	81.65	16.33	.51
Remainder	774	24744.37	31.96	

* Significant at .05 level

Since the computed F value of 208.06 was greater than the critical value of 2.21, the null hypothesis that there was no significant difference among the six subtests of the CPI Class II was rejected.

Since the computed F value of .04 was less than the critical value of 3.84, the null hypothesis that there was no significant difference between the groups, role and goal, in their responses to the CPI Class II was not rejected.

Since the computed value of .51 was less than the critical value of 2.21, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class II was not rejected.

Table 10

Least-Squares Means and Analysis of Variance for University
Academic Performance for the CPI Class II

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Responsibility	62	24.71	69	27.88
Socialization	62	33.52	69	36.80
Self-control	62	22.58	69	25.94
Tolerance	62	19.10	69	21.78
Good impression	62	13.02	69	14.03
Communality	62	24.45	69	25.57

Table 10 (continued)

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	5	33075.16	6616.03	218.17*
Groups	1	1164.79	1164.79	38.42*
Subtests X Groups	5	194.37	38.87	1.28
Remainder	774	23467.93	30.32	

* Significant at the .05 level

Since the computed F value of 218.17 was greater than the critical value of 2.21, the null hypothesis that there was no significant difference among the six subtests of the CPI Class II was rejected.

Since the computed F value of 38.42 was greater than the critical value of 3.84, the null hypothesis that there was no significant difference between the groups, role and goal, in their responses to the CPI Class II was rejected.

Since the computed value of 1.28 was less than the critical value of 2.21, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class II was not rejected.

Table 11

Least-Squares Means and Analysis of Variance for Development
of Vocational Plans for the CPI Class II

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Responsibility	20	24.85	111	26.66
Socialization	20	32.15	111	35.80
Self-control	20	22.50	111	21.68
Tolerance	20	19.75	111	20.65
Good impression	20	11.15	111	13.98
Communality	20	23.80	111	25.26

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	5	166696.92	3339.38	106.46*
Groups	1	465.36	465.36	14.84*
Subtests X Groups	5	82.67	16.53	.53
Remainder	774	24279.37	31.36	

* Significant at the .05 level

Since the computed F value of 106.46 was greater than the critical value of 2.21, the null hypothesis that there was no significant difference among the six subtests of the CPI Class II was rejected.

Since the computed F value of 14.84 was greater than the critical value of 3.84, the null hypothesis that there was no significant difference between the groups, role and goal, in their responses to the CPI Class II was rejected.

Since the computed F value of .53 was less than the critical value of 2.21, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class II was not rejected.

Table 12

Least-Squares Means and Analysis of Variance for the
Composite Profile for the CPI Class II

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Responsibility	48	27.21	83	25.90
Socialization	48	35.40	83	35.16
Self-control	48	25.63	83	23.61
Tolerance	48	21.75	83	19.80
Good impression	48	13.52	83	13.57
Communality	48	25.06	83	25.02

Table 12 (continued)

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	5	30943.28	6188.65	195.24*
Groups	1	153.31	153.45	4.84*
Subtests X Groups	5	139.31	27.86	.88
Remainder	774	24534.37	31.69	

* Significant at the .05 level

Since the computed F value of 195.24 was greater than the critical value of 2.21, the null hypothesis that there was no significant difference among the six subtests of the CPI Class II was rejected.

Since the computed F value of 4.84 was greater than the critical value of 3.84, the null hypothesis that there was no significant difference between the groups, role and goal, in their responses to the CPI Class II was rejected.

Since the computed value of .88 was less than the critical value of 2.21, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class II was not rejected.

Null hypothesis 3. There is no significant difference in personality characteristics on the CPI as measured by Class III:

Measures of Achievement Potential and Intellectual Efficiency between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 13 through 16 present the analysis of variance results for Class III of the CPI.

Table 13

Least-Squares Means and Analysis of Variance for Curriculum Choice or Lack of Choice for the CPI Class III

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Achievement via conformance	69	24.81	62	24.23
Achievement via independence	69	19.71	62	19.05
Intellectual efficiency	69	36.58	62	36.21

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	2	19897.72	9948.86	384.73*
Groups	1	28.48	28.48	1.10
Subtests X Groups	2	1.49	.74	.03
Remainder	387	10007.68	25.85	

* Significant at the .05 level

Since the computed F value of 384.73 was greater than the critical value of 2.99, the null hypothesis that there was no significant difference among the six subtests of the CPI Class III was rejected.

Since the computed F value of 1.10 was less than the critical value of 3.84, the null hypothesis that there was no significant difference between groups, role and goal, in their responses to the CPI Class III was not rejected.

Since the computed F value of .03 was less than the critical value of 2.99, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class III was not rejected.

Table 14

Least-Squares Means and Analysis of Variance for University
Academic Performance for the CPI Class III

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Achievement via conformance	62	22.73	69	26.16
Achievement via independence	62	18.15	69	20.52
Intellectual efficiency	62	34.55	69	38.07

Table 14 (continued)

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	2	19818.84	9909.42	423.16*
Groups	1	948.43	948.43	40.50*
Subtests X Groups	2	26.58	13.29	.57
Remainder	387	9062.68	23.41	

* Significant at the .05 level

Since the computed F value of 423.16 was greater than the critical value of 2.99, the null hypothesis that there was no significant difference among the six subtests of the CPI Class III was rejected.

Since the computed F value of 40.50 was greater than the critical value of 3.84, the null hypothesis that there was no significant difference between groups, role and goal, in their responses to the CPI Class III was rejected.

Since the computed value of .57 was less than the critical value of 2.99, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class III was not rejected.

Table 15

Least-Squares Means and Analysis of Variance for Development
of Vocational Plans for the CPI Class III

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Achievement via conformance	20	23.00	111	24.81
Achievement via independence	20	19.95	111	19.30
Intellectual efficiency	20	36.60	111	36.37

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	2	10413.47	5206.73	202.03*
Groups	1	4.85	4.85	.19
Subtests X Groups	2	58.83	29.41	1.14
Remainder	387	9974.00	25.77	

* Significant at the .05 level

Since the computed F value of 202.03 was greater than the critical value of 2.99, the null hypothesis that there was no significant difference among the six subtests of the CPI Class III was rejected.

Since the computed F value of .19 was less than the critical value of 3.84, the null hypothesis that there was no significant difference between the groups, role and goal, in their responses to the

CPI Class III was not rejected.

Since the computed value of 1.14 was less than the critical value of 2.99, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class III was not rejected.

Table 16

Least-Squares Means and Analysis of Variance for the Composite Profile for the CPI for Class III

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Achievement via conformance	48	25.38	83	24.05
Achievement via independence	48	20.58	83	18.71
Intellectual efficiency	48	37.75	83	35.63

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	2	18632.17	9316.08	370.14*
Groups	1	287.21	287.21	11.41*
Subtests X Groups	2	10.09	5.04	.20
Remainder	387	9740.43	25.16	

* Significant at the .05 level

Since the computed F value of 370.14 was greater than the critical value of 2.99, the null hypothesis that there was no significant difference among the six subtests of the CPI Class III was rejected.

Since the computed F value of 11.41 was greater than the critical value of 3.84, the null hypothesis that there was no significant difference between groups, role and goal, in their responses to the CPI Class III was rejected.

Since the computed F value of .20 was less than the critical value of 2.99, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class III was not rejected.

Null hypothesis 4. There is no significant difference in personality characteristics on the CPI as measured by Class IV: Measures of Intellectual and Interest Modes between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 17 through 20 present the analysis of variance results for Class IV of the CPI.

Table 17

Least-Squares Means and Analysis of Variance for Curriculum
Choice or Lack of Choice for the CPI Class IV

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Psychological-mindedness	69	10.39	62	10.32
Flexibility	69	11.81	62	10.55
Feminity	69	19.94	62	19.50

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	2	7023.85	3511.92	222.68*
Groups	1	34.25	34.25	2.17
Subtests X Groups	2	24.38	12.19	.77
Remainder	387	6103.43	15.77	

* Significant at the .05 level

Since the computed F value of 222.68 was greater than the critical value of 2.99, the null hypothesis that there was no significant difference among the six subtests of the CPI Class IV was rejected.

Since the computed F value of 2.17 was less than the critical value of 3.84, the null hypothesis that there was no significant difference between groups, role and goal, in their responses to the CPI Class IV was not rejected.

Since the computed F value of .77 was less than the critical value of 2.99, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class IV was not rejected.

Table 18

Least-Squares Means and Analysis of Variance for University
Academic Performance for the CPI Class IV

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Psychological-mindedness	62	9.79	69	10.87
Flexibility	62	11.27	69	11.16
Feminity	62	18.85	69	20.52

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	2	6972.42	3486.21	223.64*
Groups	1	75.37	75.37	4.84*
Subtests X Groups	2	53.83	26.91	1.73
Remainder	387	6032.75	15.58	

* Significant at the .05 level

Since the computed F value of 223.64 was greater than the critical value of 2.99, the null hypothesis that there was no

significant difference among the six subtests of the CPI Class IV was rejected.

Since the computed F value of 4.84 was greater than the critical value of 3.84, the null hypothesis that there was no significant difference between groups, role and goal, in their responses to the CPI Class IV was rejected.

Since the computed F value of 1.73 was less than the critical value of 2.99, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class IV was not rejected.

Table 19

Least-Squares Means and Analysis of Variance for Development of Vocational Plans for the CPI Class IV

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Psychological-mindedness	20	9.85	111	10.45
Flexibility	20	12.10	111	11.05
Femininity	20	18.70	111	19.92

Table 19 (continued)

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	2	3292.55	1646.27	104.24*
Groups	1	3.37	3.37	.21
Subtests X Groups	2	46.44	23.22	1.47
Remainder	387	6112.00	15.79	

* Significant at the .05 level

Since the computed F value of 104.24 was greater than the critical value of 2.99, the null hypothesis that there was no significant difference among the six subtests of the CPI Class IV was rejected.

Since the computed F value of .21 was less than the critical value of 3.84, the null hypothesis that there was no significant difference between groups, role and goal, in their responses to the CPI Class IV was not rejected.

Since the computed F value of 1.47 was less than the critical value of 2.99, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class IV was not rejected.

Table 20

Least-Squares Means and Analysis of Variance for the
Composite Profile for the CPI for Class IV

Subtests	Role		Goal	
	N	Least-Square Means	N	Least-Square Means
Psychological-mindedness	48	10.63	83	10.20
Flexibility	48	11.54	83	11.02
Femininity	48	19.85	83	19.66

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F
CPI Subtests	2	6483.43	3241.71	204.08*
Groups	1	12.92	12.92	.81
Subtests X Groups	2	1.70	.85	.05
Remainder	387	6147.18	15.88	

* Significant at the .05 level

Since the computed F value of 204.08 was greater than the critical value of 2.99, the null hypothesis that there was no significant difference among the six subtests of the CPI Class IV was rejected.

Since the computed F value of .81 was less than the critical value of 3.84, the null hypothesis that there was no significant difference between groups, role and goal, in their responses to the

CPI Class IV was not rejected.

Since the computed F value of .05 was less than the critical value of 2.99, the null hypothesis that there was no significant difference between role and goal among the six subtests of the CPI Class IV was not rejected.

Hypotheses Related to Educational-
Vocational Goals and Values

The null hypotheses related to the seventeen items relating to goals and values on the Survey of Student Interests and Values are as follows:

Item 8: The most important reason for going to college for me is:

1. Preparation for an occupation
2. Pursuit of knowledge
3. Social life, establish friendships
4. Pressure from relatives or friends
5. Search for meaning in life and personal identity

Null hypothesis 5. There is no significant difference in the most important reason for going to college between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 21 through 24 contain the numbers of responses to item 8 and the computed chi square. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With four degrees of freedom, a chi square of 9.48 is needed to be significant at the .05 level.

Table 21

Numbers of Students Responding to Item 8 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item Stems				
	1	2	3	4	5
Role	42	13	1	2	9
Goal	44	7	2	0	9

$$\chi^2 = 3.99 \quad df = 4$$

The null hypothesis was not rejected since the computed chi square value of 3.99 was less than the critical value of 9.48. There was no significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice in selecting the most important reason for going to college.

Table 22

Numbers of Students Responding to Item 8 Who Were Classified
on the Basis of University Academic Performance

Classification	Item Stems				
	1	2	3	4	5
Role	36	11	2	1	11
Goal	50	9	1	1	7

$$\chi^2 = 3.33 \quad df = 4$$

The null hypothesis was not rejected since the computed chi square value of 3.33 was lower than the critical value of 9.48. There was no significant difference between the role and goal motivated students as classified on the basis of academic performance in selecting the most important reason for going to college.

Table 23

Numbers of Students Responding to Item 8 Who Were
Classified on Development of Vocational Plans

Classification	Item Stems				
	1	2	3	4	5
Role	9	5	0	1	5
Goal	77	15	3	1	13

$$\chi^2 = 7.48 \quad df = 4$$

The null hypothesis was not rejected since the computed chi square value of 7.48 was lower than the critical value of 9.48. There

was no significant difference between the role and goal motivated students as classified on the basis of development of vocational plans in selecting the most important reason for going to college.

Table 24

Numbers of Students Responding to Item 8 Who Were Classified on the Basis of the Composite Profile

Classification	Item Stems				
	1	2	3	4	5
Role	31	8	0	2	6
Goal	55	12	3	0	12

$$\chi^2 = 5.39$$

$$df = 4$$

The null hypothesis was not rejected since the computed chi square value of 5.39 was less than the critical value of 9.48. There was no significant difference between the role and goal motivated students as classified on the basis of their composite profile in selecting the most important reason for going to college.

Item 9: Indicate degree of satisfaction with your present curriculum.

1. Very satisfactory
2. Acceptable
3. Somewhat dissatisfied
4. Very dissatisfied

Null hypothesis 6. There is no significant difference in the degree of satisfaction with their present curriculum between students

who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 25 through 28 contain the numbers of responses to item 9 and the computed chi square. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With three degrees of freedom, a chi square of 7.81 is needed to be significant at the .05 level.

Table 25

Numbers of Students Responding to Item 9 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item Stems			
	1	2	3	4
Role	12	33	19	5
Goal	31	24	6	1

$$\chi^2 = 18.92 \quad df = 3$$

The null hypothesis was rejected since the computed chi square value of 18.92 was greater than the critical value of 7.81. There was a significant difference between role and goal motivated students as classified on the basis of curriculum choice or lack of choice in the degree of

satisfaction with their present curriculum.

Table 26

Numbers of Students Responding to Item 9 Who Were Classified
on the Basis of University Academic Performance

Classification	Item Stems			
	1	2	3	4
Role	14	30	14	4
Goal	29	27	11	2

$$\chi^2 = 6.06$$

$$df = 3$$

The null hypothesis was not rejected since the computed chi square value of 6.06 was less than the critical value of 7.81. There was no significant difference between role and goal motivated students as classified on the basis of academic performance in the degree of satisfaction with their present curriculum.

Table 27

Numbers of Students Responding to Item 9 Who Were
Classified on the Basis of Development of
Vocational Plans

Classification	Item Stems			
	1	2	3	4
Role	4	8	7	1
Goal	39	49	18	5

$$\chi^2 = 4.39$$

$$df = 3$$

The null hypothesis was not rejected since the computed chi square value of 4.39 was less than the critical value of 7.81. There was no significant difference between role and goal motivated students as classified on the basis of development of vocational plans in the degree of satisfaction with their present curriculum.

Table 28

Numbers of Students Responding to Item 9 Who Were
Classified on the Basis of the Composite Profile

Classification	Item Stems			
	1	2	3	4
Role	14	20	11	3
Goal	29	37	14	3

$$\chi^2 = 1.41$$

$$df = 3$$

The null hypothesis was not rejected since the computed chi square value of 1.41 was less than the critical value of 7.81. There was no significant difference between role and goal motivated students as classified on the basis of their composite profile in the degree of satisfaction with their present curriculum.

Item 12: Grades are usually an important reason for satisfaction or dissatisfaction with the kind of work one is doing in college. Indicate below how you feel about the grades you have received.

1. I think my grades approximately match my abilities, because I make an average of effort and have had reasonably good luck.

2. I think my grades are lower than my abilities because of illness, family difficulties, or other unfavorable outside influences.
3. I think my grades are lower than my abilities because I have been less interested in working for grades than most students.
4. I think my grades are higher than my abilities because of good luck with teachers, special help, or other favorable influences.
5. I think my grades are higher than my abilities because I have made an unusually strenuous effort to obtain good grades.

Null hypothesis 7. There is no significant difference in the attitude toward college grades between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 29 through 32 contain the numbers of responses to item 12 and the computed chi square. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With four degrees of freedom, a chi square of 9.48 is needed to be significant at the .05 level.

Table 29

Numbers of Students Responding to Item 12 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item Stems				
	1	2	3	4	5
Role	31	15	19	0	3
Goal	28	15	13	1	5

$$\chi^2 = 2.50$$

$$df = 4$$

The null hypothesis was not rejected since the computed chi square value of 2.50 was less than the critical value of 9.48. There was no significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice in their attitude toward college grades.

Table 30

Numbers of Students Responding to Item 12 Who Were Classified
on the Basis of University Academic Performance

Classification	Item Stems				
	1	2	3	4	5
Role	20	20	20	0	2
Goal	39	10	12	1	6

$$\chi^2 = 14.20$$

$$df = 4$$

The null hypothesis was rejected since the computed chi square value of 14.20 was greater than the critical value of 9.48. There was a significant difference between the role and goal motivated students as classified on the basis of academic performance in their attitude toward college grades.

Table 31

Numbers of Students Responding to Item 12 Who Were
Classified on the Basis of Development of
Vocational Plans

Classification	Item Stems				
	1	2	3	4	5
Role	10	4	5	0	1
Goal	49	26	27	1	7

$$\chi^2 = .44$$

$$df = 4$$

The null hypothesis was not rejected since the computed chi square value of .44 was less than the critical value of 9.48. There was no significant difference between the role and goal motivated students as classified on the basis of development of vocational plans in their attitude toward college grades.

Table 32

Numbers of Students Responding to Item 12 Who Were
Classified on the Basis of the Composite Profile

Classification	Item Stems				
	1	2	3	4	5
Role	27	8	9	0	3
Goal	32	22	23	1	5

$$\chi^2 = 4.99$$

$$df = 4$$

The null hypothesis was not rejected since the computed chi square value of 4.99 was less than the critical value of 9.48. There was no significant difference between the role and goal motivated students as classified on the basis of their composite profile in their attitude toward college grades.

Item 13: What is the highest academic degree that you intend to obtain?

1. None
2. Associate (A.A. or equivalent)
3. Bachelor's Degree (B.A., B.S., etc.)
4. Master's Degree (M.A., M.S., etc.)
5. Ph.D. or Ed.D
6. M.D., D.O., D.D.S., or D.V.M.
7. LL.B. or J.D. (Law)
8. B.D. or M.D. (Divinity)
9. Other

Null hypothesis 8. There is no significant difference in the highest academic degree aspirations between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 33 through 36 contain the numbers of responses to item 13 and the computed chi square. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With eight degrees of freedom, a chi square of 15.50 is needed to be significant at the .05 level.

Table 33

Numbers of Students Responding to Item 13 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item Stems								
	1	2	3	4	5	6	7	8	9
Role	3	1	38	15	7	2	2	0	1
Goal	3	1	43	8	1	2	1	0	3

$$\chi^2 = 7.92$$

$$df = 8$$

The null hypothesis was not rejected since the computed chi square value of 7.92 was less than the critical value of 15.50. There was no significant difference between role and goal motivated students as classified on the basis of curriculum choice or lack of choice in the highest degree they intended to obtain.

Table 34

Numbers of Students Responding to Item 13 Who Were Classified
on the Basis of University Academic Performance

Classification	Item Stems								
	1	2	3	4	5	6	7	8	9
Role	3	1	35	13	3	2	2	0	3
Goal	3	1	46	10	5	2	1	0	1

$$\chi^2 = 3.35 \quad df = 8$$

The null hypothesis was not rejected since the computed chi square value of 3.35 was less than the critical value of 15.50. There was no significant difference between role and goal motivated students as classified on the basis of academic performance in the highest degree they intended to obtain.

Table 35

Numbers of Students Responding to Item 13 Who Were
Classified on the Basis of Development of
Vocational Plans

Classification	Item Stems								
	1	2	3	4	5	6	7	8	9
Role	0	0	15	1	3	0	0	0	1
Goal	6	2	66	22	5	4	3	0	3

$$\chi^2 = 8.83 \quad df = 8$$

The null hypothesis was not rejected since the computed chi square value of 8.33 was less than the critical value of 15.50. There

was no significant difference between the role and goal motivated students as classified on the basis of development of vocational plans in the highest degree they intended to obtain.

Table 36

Numbers of Students Responding to Item 13 Who Were
Classified on the Basis of the Composite Profile

Classification	Item Stems								
	1	2	3	4	5	6	7	8	9
Role	1	0	30	8	7	1	0	0	1
Goal	5	2	51	15	1	3	3	0	3

$$\chi^2 = 13.34 \quad df = 8$$

The null hypothesis was not rejected since the computed chi square value of 13.34 was less than the critical value of 15.50. There was no significant difference between role and goal motivated students as classified on the basis of their composite profile in the highest degree they intended to obtain.

Item 14: Do you expect to continue your education in a graduate or a professional school?

1. Definitely yes
2. Probably yes
3. Probably not
4. Definitely not
5. Haven't thought enough about this matter to say

Null hypothesis 9. There is no significant difference in future educational plans between students who are classified as role or goal

motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivated profile

Tables 37 through 40 contain the numbers of responses to item 14 and the computed chi square. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With four degrees of freedom, a chi square of 9.48 is needed to be significant at the .05 level.

Table 37

Numbers of Students Responding to Item 14 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item Stems				
	1	2	3	4	5
Role	6	13	24	4	22
Goal	6	9	23	7	17

$$\chi^2 = 1.83 \quad df = 4$$

The null hypothesis was not rejected since the computed chi square value of 1.83 was less than the critical value of 9.48. There was no significant difference between role and goal motivated students as classified on the basis of curriculum choice or lack of choice in continuing their education in a graduate or professional school.

Table 38

Numbers of Students Responding to Item 14 Who Were Classified
on the Basis of University Academic Performance

Classification	Item Stems				
	1	2	3	4	5
Role	6	10	20	5	21
Goal	6	12	27	6	18

$$\chi^2 = 1.17 \quad df = 4$$

The null hypothesis was not rejected since the computed chi square value of 1.17 was less than the critical value of 9.48. There was no significant difference between role and goal motivated students as classified on the basis of academic performance in continuing their education in a graduate or professional school.

Table 39

Numbers of Students Responding to Item 14 Who Were
Classified on the Basis of Development of
Vocational Plans

Classification	Item Stems				
	1	2	3	4	5
Role	2	2	7	2	7
Goal	10	20	40	9	32

$$\chi^2 = .96 \quad df = 4$$

The null hypothesis was not rejected since the computed chi square value of .96 was less than the critical value of 9.48. There

was no significant difference between the role and goal motivated students as classified on the basis of development of vocational plans in continuing their education in a graduate or a professional school.

Table 40

Numbers of Students Responding to Item 14 Who Were
Classified on the Basis of the Composite Profile

Classification	Item Stems				
	1	2	3	4	5
Role	4	10	18	3	13
Goal	8	12	29	8	26

$$\chi^2 = 1.44$$

$$df = 4$$

The null hypothesis was not rejected since the computed chi square value of 1.44 was less than the critical value of 9.48. There was no significant difference between role and goal motivated students as classified on the basis of their composite profile in continuing their education in a graduate or professional school.

Item 16: In thinking about your occupational future, do you feel that in the long run you will have a preference for:

1. An academic life (teaching, research, other scholarly work)
2. A business life
3. A professional life (doctor, lawyer, engineer, etc.)
4. A life of a trained technician or craftsman
5. A life centering around some aspect of the

creative arts

6. A life centering around a home and a family
7. Other
8. I have not given sufficient thought to this matter to say

Null hypothesis 10. There is no significant difference in future occupational plans between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 41 through 44 contain the numbers of responses to item 16 and the computed chi squares. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With seven degrees of freedom, a chi square of 14.06 is needed to be significant at the .05 level.

Table 41

Numbers of Students Responding to Item 16 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item Stems							
	1	2	3	4	5	6	7	8
Role	13	9	17	2	3	16	5	4
Goal	12	11	15	3	5	11	5	0

$$\chi^2 = 5.63$$

$$df = 7$$

The null hypothesis was not rejected since the computed chi square value of 5.63 was less than the critical value of 14.06. There was no significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice in relation to future occupational plans.

Table 42

Numbers of Students Responding to Item 16 Who Were Classified on the Basis of University Academic Performance

Classification	Item Stems							
	1	2	3	4	5	6	7	8
Role	14	11	16	3	5	9	4	0
Goal	11	9	16	2	3	18	6	4

$$\chi^2 = 8.30$$

$$df = 7$$

The null hypothesis was not rejected since the computed chi square value of 8.30 was less than the critical value of 14.06. There was no significant difference between the role and goal motivated students as classified on the basis of academic performance in relation to future occupational plans.

Table 43

Numbers of Students Responding to Item 16 Who Were
Classified on the Basis of Development of
Vocational Plans

Classification	Item Stems							
	1	2	3	4	5	6	7	8
Role	2	1	5	2	2	4	4	2
Goal	23	19	27	5	6	23	6	2

$$\chi^2 = 11.70$$

$$df = 7$$

The null hypothesis was not rejected since the computed chi square value of 11.70 was less than the critical value of 14.06. There was no significant difference between the role and goal motivated students as classified on the basis of development of vocational plans in relation to future occupational plans.

Table 44

Numbers of Students Responding to Item 16 Who Were
Classified on the Basis of the Composite Profile

Classification	Item Stems							
	1	2	3	4	5	6	7	8
Role	8	5	12	1	2	12	4	4
Goal	17	15	20	4	6	15	6	0

$$\chi^2 = 10.14$$

$$df = 7$$

The null hypothesis was not rejected since the computed chi square value of 10.14 was less than the critical value of 14.06. There

was no significant difference between the role and goal motivated students as classified on the basis of their composite profile in relation to future occupational plans.

Item 17: Below are four descriptive statements of "personal philosophies" of higher education. Indicate the one which is the best description of your point of view.

1. This philosophy emphasizes education essentially as preparation for an occupational future.
2. This philosophy, while it does not ignore career preparation, assigns greatest importance to scholarly pursuit of knowledge and understanding wherever the pursuit may lead.
3. This philosophy holds that besides occupational training and/or scholarly endeavor, an important part of college life exists outside the classroom, laboratory and library. Extracurricular activities, social life, etc. are important elements in one's college experience.
4. This philosophy emphasizes individualistic interests and styles, concern for personal identity and, often, contempt for many aspects of organized society. There is little or no interest in business or professional careers or extracurricular activities or tradition.

Null hypothesis 11. There is no significant difference in personal philosophies of higher education between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 45 through 48 contain the numbers of responses to item 17 and the computed chi squares. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With three degrees of freedom, a chi square of 7.81 is needed to be significant at the .05 level.

Table 45

Numbers of Students Responding to Item 17 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item Stems			
	1	2	3	4
Role	6	20	41	2
Goal	8	9	42	3

$$x^2 = 4.30 \quad df = 3$$

The null hypothesis was not rejected since the computed chi square value of 4.30 was less than the critical value of 7.81. There was not a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice in relation to their personal philosophy of higher education.

Table 46

Numbers of Students Responding to Item 17 Who Were Classified
on the Basis of University Academic Performance

Classification	Item Stems			
	1	2	3	4
Role	10	14	54	2
Goal	4	15	46	4

$$\chi^2 = 5.02 \quad df = 3$$

The null hypothesis was not rejected since the computed chi square value of 5.02 was less than the critical value of 7.81. There was not a significant difference between the role and goal motivated students as classified on the basis of academic performance in relation to their personal philosophy of education.

Table 47

Numbers of Students Responding to Item 17 Who Were
Classified on the Basis of Development of
Vocational Plans

Classification	Item Stems			
	1	2	3	4
Role	0	9	8	3
Goal	14	20	75	2

$$\chi^2 = 17.86 \quad df = 3$$

The null hypothesis was rejected since the computed chi square value of 17.86 was greater than the critical value of 7.81. There was

a significant difference between the role and goal motivated students as classified on the basis of development of vocational plans in relation to their personal philosophy of higher education.

Table 48

Numbers of Students Responding to Item 17 Who Were
Classified on the Basis of the Composite Profile

Classification	Item Stems			
	1	2	3	4
Role	1	15	29	3
Goal	13	14	54	2

$$\chi^2 = 9.36$$

$$df = 3$$

The null hypothesis was rejected since the computed chi square value of 9.36 was greater than the critical value of 7.81. There was a significant difference between the role and goal motivated students as classified on the basis of their composite profile in relation to their personal philosophy of higher education.

Item 18: When did you first know what you wanted to do as your life's work?

1. Since you were a small child
2. By the time you were through elementary school
3. By the time you were through high school
4. Still not sure

Null hypothesis 12. There is no significant difference in the time of life when occupational goals were decided between students who

are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 49 through 52 contain the numbers of responses to item 18 and the computed chi squares. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With three degrees of freedom, a chi square of 7.81 is needed to be significant at the .05 level.

Table 49

Numbers of Students Responding to Item 18 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item Stems			
	1	2	3	4
Role	4	4	27	33
Goal	4	7	44	7

$$\chi^2 = 21.55 \quad df = 3$$

The null hypothesis was rejected since the computed chi square value of 21.55 was greater than the critical value of 7.81. There was a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice in regard to the time of life when occupational goals were decided.

Table 50

Numbers of Students Responding to Item 18 Who Were Classified
on the Basis of University Academic Performance

Classification	Item Stems			
	1	2	3	4
Role	4	4	32	21
Goal	4	7	39	19

$$\chi^2 = 1.12$$

$$df = 3$$

The null hypothesis was not rejected since the computed chi square value of 1.12 was less than the critical value of 7.81. There was not a significant difference between the role and goal motivated students as classified on the basis of academic performance in regard to the time of life when occupational goals were decided.

Table 51

Numbers of Students Responding to Item 18 Who Were
Classified on the Basis of Development of
Vocational Plans

Classification	Item Stems			
	1	2	3	4
Role	0	1	1	18
Goal	8	10	70	22

$$\chi^2 = 39.39$$

$$df = 3$$

The null hypothesis was rejected since the computed chi square value of 39.39 was greater than the critical value of 7.81. There was a

significant difference between the role and goal motivated students as classified on the basis of development of vocational plans in regard to the time of life when occupational goals were decided.

Table 52

Numbers of Students Responding to Item 18 Who Were
Classified on the Basis of the Composite Profile

Classification	Item Stems			
	1	2	3	4
Role	2	2	19	25
Goal	6	9	52	15

$$\chi^2 = 16.53 \quad df = 3$$

The null hypothesis was rejected since the computed chi square value of 16.53 was greater than the critical value of 7.81. There was a significant difference between the role and goal motivated students as classified on the basis of their composite profile in regard to the time of life when occupational goals were decided.

Item 20: Regarding responsibility in your ideal job, you would:

1. Like to have a good deal of responsibility
2. Like to have some responsibility, but still have someone responsible over you
3. Prefer a minimum of responsibility
4. Rather not have any responsibility

Null hypothesis 13. There is no significant difference in amount of responsibility desired in their occupation between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 53 through 56 contain the numbers of responses to item 20 and the computed chi squares. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With three degrees of freedom, a chi square of 7.81 is needed to be significant at the .05 level.

Table 53

Numbers of Students Responding to Item 20 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item Stems			
	1	2	3	4
Role	33	33	2	0
Goal	35	25	1	0

$$\chi^2 = 1.11 \quad df = 3$$

The null hypothesis was not rejected since the computed chi square value of 1.11 was less than the critical value of 7.81. There was not a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice in regard to the amount of responsibility desired in their occupation.

Table 54

Numbers of Students Responding to Item 20 Who Were Classified
on the Basis of University Academic Performance

Classification	Item Stems			
	1	2	3	4
Role	45	34	2	0
Goal	36	32	0	0

$$\chi^2 = 3.48$$

$$df = 3$$

The null hypothesis was not rejected since the computed chi square of 3.48 was less than the critical value of 7.81. There was not a significant difference between the role and goal motivated students as classified on the basis of academic performance in regard to the amount of responsibility desired in their occupation.

Table 55

Numbers of Students Responding to Item 20 Who Were
Classified on the Basis of Development of
Vocational Plans

Classification	Item Stems			
	1	2	3	4
Role	10	9	1	0
Goal	58	49	2	0

$$\chi^2 = .76$$

$$df = 3$$

The null hypothesis was not rejected since the computed chi square of .76 was less than the critical value of 7.81. There was not

a significant difference between the role and goal motivated students as classified on the basis of development of vocational plans in regard to the amount of responsibility desired in their occupation.

Table 56

Numbers of Students Responding to Item 20 Who Were
Classified on the Basis of the Composite Profile

Classification	Item Stems			
	1	2	3	4
Role	23	24	1	0
Goal	45	34	2	0

$$\chi^2 = .78$$

$$df = 3$$

The null hypothesis was not rejected since the computed chi square value of .78 was less than the critical value of 7.81. There was not a significant difference between the role and goal motivated students as classified on the basis of their composite profile in regard to the amount of responsibility desired in their occupation.

Item 21: What do you think is the most important thing a person should get out of college?

1. Training for a profession
2. General cultural knowledge
3. Personal maturity
4. Social polish

Null hypothesis 14. There is no significant difference in college expectations between students who are classified as role or

goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 57 through 60 contain the numbers of responses to item 21 and the computed chi squares. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With three degrees of freedom, a chi square of 7.81 is needed to be significant at the .05 level.

Table 57

Numbers of Students Responding to Item 21 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item Stems			
	1	2	3	4
Role	29	19	21	0
Goal	28	8	26	0

$$x^2 = 4.67 \quad df = 3$$

The null hypothesis was not rejected since the computed chi square value of 4.67 was less than the critical value of 7.81. There was not a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of

choice in regard to their college expectations.

Table 58

Numbers of Students Responding to Item 21 Who Were Classified
on the Basis of University Academic Performance

Classification	Item Stems			
	1	2	3	4
Role	36	12	14	0
Goal	21	15	33	0

$$\chi^2 = 11.62 \quad df = 3$$

The null hypothesis was rejected since the computed chi square of 11.62 was greater than the critical value of 7.81. There was a significant difference between the role and goal motivated students as classified on the basis of academic performance in regard to their college expectations.

Table 59

Numbers of Students Responding to Item 21 Who Were
Classified on the Basis of Development of
Vocational Plans

Classification	Item Stems			
	1	2	3	4
Role	6	7	7	0
Goal	51	20	40	0

$$\chi^2 = 3.36 \quad df = 3$$

The null hypothesis was not rejected since the computed chi square value of 3.36 was less than the critical value of 7.81. There was not a significant difference between the role and goal motivated students as classified on the basis of development of vocational plans in regard to their college expectations.

Table 60

Numbers of Students Responding to Item 21 Who Were
Classified on the Basis of the Composite Profile

Classification	Item Stems			
	1	2	3	4
Role	14	14	20	0
Goal	43	13	27	0

$$\chi^2 = 6.98$$

$$df = 3$$

The null hypothesis was not rejected since the computed chi square value of 6.98 was less than the critical value of 7.81. There was not a significant difference between the role and goal motivated students as classified on the basis of their composite profile in regard to their college expectations.

Item 22: Concerning your present and future activities, do you:

1. Make rather precise and detailed plans
2. Make broad and general plans, but not detailed ones
3. Make few plans, let "nature take its course"

Null hypothesis 15. There is no significant difference in

attitudes toward present and future planning between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 61 through 64 contain the numbers of responses to item 22 and the computed chi squares. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With two degrees of freedom, a chi square of 5.99 is needed to be significant at the .05 level.

Table 61

Numbers of Students Responding to Item 22 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item Stems		
	1	2	3
Role	7	49	13
Goal	12	40	10

$$\chi^2 = 2.24$$

$$df = 2$$

The null hypothesis was not rejected since the computed chi square value of 2.24 was less than the critical value of 5.99. There was not a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice in

regard to their attitudes toward present and future planning.

Table 62

Numbers of Students Responding to Item 22 Who Were Classified
on the Basis of University Academic Performance

Classification	Item Stems		
	1	2	3
Role	7	40	15
Goal	12	49	8
$\chi^2 = 3.99$			df = 2

The null hypothesis was not rejected since the computed chi square value of 3.99 was less than the critical value of 5.99. There was not a significant difference between the role and goal motivated students as classified on the basis of academic performance in regard to their attitudes toward present and future planning.

Table 63

Numbers of Students Responding to Item 22 Who Were
Classified on the Basis of Development of
Vocational Plans

Classification	Item Stems		
	1	2	3
Role	0	15	5
Goal	19	74	18
$\chi^2 = 4.34$			df = 2

The null hypothesis was not rejected since the computed chi square value of 4.31 was less than the critical value of 5.99. There was not a significant difference between the role and goal motivated students as classified on the basis of development of vocational plans in regard to their attitudes toward present and future planning.

Table 64

Numbers of Students Responding to Item 22 Who Were
Classified on the Basis of the Composite Profile

Classification	Item Stems		
	1	2	3
Role	4	37	7
Goal	15	52	16

$$\chi^2 = 3.30 \quad df = 2$$

The null hypothesis was not rejected since the computed chi square value of 3.30 was less than the critical value of 5.99. There was not a significant difference between the role and goal motivated students as classified on the basis of their composite profile in regard to their attitudes toward present and future planning.

Item 23: About how often did you change your mind about future vocational plans since the time you entered high school?

1. Have not changed them.
2. Only once
3. Two or three times
4. Too many to remember
5. Have still not decided

Null hypothesis 16. There is no significant difference in the number of times that vocational plans have been changed between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 65 through 68 contain the numbers of responses to item 23 and the computed chi squares. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With four degrees of freedom a chi square of 9.48 is needed to be significant at the .05 level.

Table 65

Numbers of Students Responding to Item 23 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item Stems				
	1	2	3	4	5
Role	6	17	25	4	16
Goal	23	15	21	2	1

$$\chi^2 = 24.11 \quad df = 4$$

The null hypothesis was rejected since the computed chi square value of 24.11 was greater than the critical value of 9.48. There was

a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice in regard to the number of times that vocational plans have been changed.

Table 66

Numbers of Students Responding to Item 23 Who Were Classified on the Basis of University Academic Performance

Classification	Item Stems				
	1	2	3	4	5
Role	14	17	18	5	7
Goal	15	15	28	1	10

$$\chi^2 = 5.05 \quad df = 4$$

The null hypothesis was not rejected since the computed chi square value of 5.05 was less than the critical value of 9.48. There was not a significant difference between the role and goal motivated students as classified on the basis of academic performance in regard to the number of times that vocational plans have been changed.

Table 67

Numbers of Students Responding to Item 23 Who Were Classified on the Basis of Development of Vocational Plans

Classification	Item Stems				
	1	2	3	4	5
Role	2	2	2	1	12
Goal	27	30	44	5	5

$$\chi^2 = 49.76 \quad df = 4$$

The null hypothesis was rejected since the computed chi square value of 49.76 was greater than the critical value of 9.48. There was a significant difference between the role and goal motivated students as classified on the basis of development of vocational plans in regard to the number of times that vocational plans have been changed.

Table 68

Numbers of Students Responding to Item 23 Who Were
Classified on the Basis of the Composite Profile

Classification	Item Stems				
	1	2	3	4	5
Role	3	9	19	1	15
Goal	26	23	27	5	2

$$\chi^2 = 30.75$$

$$df = 4$$

The null hypothesis was rejected since the computed chi square value of 30.75 was greater than the critical value of 9.48. There was a significant difference between the role and goal motivated students as classified on the basis of their composite profile in regard to the number of times that vocational plans have been changed.

Item 24: Which one of the following has played the most important part in your career decision?

1. No career decision made yet
2. Interest in the area
3. Influence of parents
4. Influence of other relative
5. Opportunities in the field

6. Influence of teachers or counselor
7. Social advantages of the occupation
8. Hobby

Null hypothesis 17. There is no significant difference in the factors influencing career decisions between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 69 through 72 contain the numbers of responses to item 24 and the computed chi squares. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With seven degrees of freedom, a chi square of 14.06 is needed to be significant at the .05 level.

Table 69

Numbers of Students Responding to Item 24 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item Stems							
	1	2	3	4	5	6	7	8
Role	15	36	4	0	8	2	2	1
Goal	1	43	0	3	8	2	0	2

$$\chi^2 = 21.67 \quad df = 7$$

The null hypothesis was rejected since the computed chi square value of 21.67 was greater than the critical value of 14.06. There was a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice in regard to factors influencing career decisions.

Table 70

Numbers of Students Responding to Item 24 Who Were Classified
on the Basis of University Academic Performance

Classification	Item Stems							
	1	2	3	4	5	6	7	8
Role	7	35	2	2	11	1	2	1
Goal	9	44	2	1	5	3	0	2

$$\chi^2 = 7.00$$

$$df = 7$$

The null hypothesis was not rejected since the computed chi square value of 7.00 was less than the critical value of 14.06. There was not a significant difference between the role and goal motivated students as classified on the basis of academic performance in regard to factors influencing career decisions.

Table 71

Numbers of Students Responding to Item 24 Who Were
Classified on the Basis of Development of
Vocational Plans

Classification	Item Stems							
	1	2	3	4	5	6	7	8
Role	9	8	0	0	1	1	0	1
Goal	7	71	4	3	15	3	2	2
$\chi^2 = 25.39$ $df = 7$								

The null hypothesis was rejected since the computed chi square value of 25.39 was greater than the critical value of 14.06. There was a significant difference between the role and goal motivated students as classified on the basis of development of vocational plans in regard to factors influencing career decisions.

Table 72

Numbers of Students Responding to Item 24 Who Were
Classified on the Basis of the Composite Profile

Classification	Item Stems							
	1	2	3	4	5	6	7	8
Role	12	28	2	0	2	2	0	1
Goal	4	51	2	3	14	2	2	2
$\chi^2 = 17.64$ $df = 7$								

The null hypothesis was rejected since the computed chi square value of 17.64 was greater than the critical value of 14.06. There was

a significant difference between the role and goal motivated students as classified on the basis of their composite profile in regard to factors influencing career decisions.

Items 25-36: Below are some of the reasons that might have influenced your decision to attend this particular college. Indicate the most important reasons for you.

25. Parents wanted me to come here.
26. I wanted to live away from home.
27. A teacher advised me.
28. This college has a good academic reputation.
29. I was offered financial assistance.
30. Someone who had been here before advised me to go.
31. Because of special educational programs offered.
32. Because of low tuition.
33. My guidance counselor advised me to go.
34. I wanted to live at home.
35. I could not get a job.
36. This college has a good athletic program.

Null hypothesis 18. There is no significant difference in factors influencing decisions to attend this particular college between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 73 through 76 contain the numbers of responses to items 25 through 36 and the computed chi squares. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With

eleven degrees of freedom, a chi square of 19.67 is needed to be significant at the .05 level.

Table 73

Numbers of Students Responding to Items 25-36 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Items											
	25	26	27	28	29	30	31	32	33	34	35	36
Role	20	48	10	32	20	21	11	17	7	2	3	2
Goal	19	31	12	39	16	24	13	11	8	3	3	3

$$x^2 = 6.80$$

$$df = 11$$

The null hypothesis was not rejected since the computed chi square value of 6.80 was less than the critical value of 19.67. There was not a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice in regard to factors influencing decisions to attend this particular college.

Table 74

Numbers of Students Responding to Items 25-36 Who Were Classified
on the Basis of University Academic Performance

Classification	Items											
	25	26	27	28	29	30	31	32	33	34	35	36
Role	18	32	7	27	7	20	10	14	3	3	3	3
Goal	21	47	15	44	29	25	14	14	12	2	3	2

$$x^2 = 13.66$$

$$df = 11$$

The null hypothesis was not rejected since the computed chi square value of 13.66 was less than the critical value of 19.67. There was not a significant difference between the role and goal motivated students as classified on the basis of academic performance in regard to factors influencing decisions to attend this particular college.

Table 75

Numbers of Students Responding to Items 25-36 Who Were
Classified on the Basis of Development of
Vocational Plans

Classification	Items											
	25	26	27	28	29	30	31	32	33	34	35	36
Role	7	12	2	7	6	5	2	5	3	0	1	0
Goal	32	67	20	64	30	40	22	23	12	5	5	5

$$\chi^2 = 5.76 \quad df = 11$$

The null hypothesis was not rejected since the computed chi square value of 5.76 was less than the critical value of 19.67. There was not a significant difference between the role and goal motivated students as classified on the basis of development of vocational plans in regard to factors influencing decisions to attend this particular college.

Table 76

Numbers of Students Responding to Items 25-36 Who Were
Classified on the Basis of the Composite Profile

Classification	Items											
	25	26	27	28	29	30	31	32	33	34	35	36
Role	12	33	8	23	19	13	6	13	6	1	3	1
Goal	27	46	14	48	17	32	18	15	9	4	3	4

$$\chi^2 = 11.48 \quad df = 11$$

The null hypothesis was not rejected since the computed chi square value of 11.48 was less than the critical value of 19.67. There was not a significant difference between the role and goal motivated students as classified on the basis of their composite profile in regard to factors influencing decisions to attend this particular college.

Item 37-49: Below are several personal objectives. Indicate those which you feel to be essential or very important.

37. Achieve in a performing art
38. Be an authority in my field
39. Influence political structure
40. Influence social values
41. Raise a family
42. Have administrative responsibility
43. Be very well off financially
44. Help others in difficulty
45. Be successful in my own business
46. Be involved in environmental cleanup
47. Develop a meaningful philosophy of life
48. Become a community leader
49. Keep up with political affairs

Null hypothesis 19. There is no significant difference in personal objectives between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 77 through 80 contain the numbers of responses to items 37 through 49 and the computed chi squares. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With twelve degrees of freedom, a chi square of 21.02 is needed to be significant at the .05 level.

Table 77

Numbers of Students Responding to Items 37-49 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item													
	37	38	39	40	41	42	43	44	45	46	47	48	49	
Role	11	34	5	17	39	11	27	46	30	19	44	3	15	
Goal	12	32	7	18	37	19	25	40	25	19	39	14	20	

$$\chi^2 = 11.67$$

$$df = 12$$

The null hypothesis was not rejected since the computed chi square value of 11.67 was less than the critical value of 21.02. There

was not a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice in regard to personal objectives.

Table 78

Numbers of Students Responding to Items 37-49 Who Were Classified on the Basis of University Academic Performance

Classification	Item												
	37	38	39	40	41	42	43	44	45	46	47	48	49
Role	14	30	9	21	32	13	29	38	26	15	33	9	18
Goal	9	36	9	14	44	17	23	48	29	23	50	8	17

$$\chi^2 = 10.17$$

$$df = 12$$

The null hypothesis was not rejected since the computed chi square value of 10.17 was less than the critical value of 21.02. There was not a significant difference between the role and goal motivated students as classified on the basis of academic performance in regard to personal objectives.

Table 79

Numbers of Students Responding to Items 37-49 Who Were Classified on the Basis of Development of Vocational Plans

Classification	Item												
	37	38	39	40	41	42	43	44	45	46	47	48	49
Role	2	7	1	7	10	2	6	11	7	4	19	0	2
Goal	21	59	11	28	66	28	46	75	48	34	64	17	33

$$\chi^2 = 23.07$$

$$df = 12$$

The null hypothesis was rejected since the computed chi square value of 23.07 was greater than the critical value of 21.02. There was a significant difference between the role and goal motivated students as classified on the basis of development of vocational plans in regard to personal objectives.

Table 80

Numbers of Students Responding to Items 37-49 Who Were Classified on the Basis of the Composite Profile

Classification	Item												
	37	38	39	40	41	42	43	44	45	46	47	48	49
Role	7	22	1	12	28	7	15	35	18	14	36	2	8
Goal	16	44	11	23	4	23	37	51	37	24	47	15	27

$$\chi^2 = 16.95$$

$$df = 12$$

The null hypothesis was not rejected since the computed chi square value of 16.95 was less than the critical value of 21.02. There was not a significant difference between the role and goal motivated students as classified on the basis of their composite profile in regard to personal objectives.

Items 50-62: In which of the following areas do you hope to receive your greatest personal satisfaction at this college during the present year?

- 50. Course work in general
- 51. Individual study or research
- 52. Getting acquainted with faculty members
- 53. Student government

54. Athletics
55. "Bull-sessions" with fellow students
56. Parties and social life
57. Dating
58. Close friendships with students
59. Getting acquainted with a wide variety of students
60. The life of the dorms or houses
61. Individual artistic or literary work
62. Self-discovery, self-insight (discovery of new interest, talents, etc.)

Null hypothesis 20. There is no significant difference in areas of receiving greatest personal satisfaction at college between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 81 through 84 contain the numbers of responses to items 50 through 62 and the computed chi squares. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With twelve degrees of freedom, a chi square of 21.02 is needed to be significant at the .05 level.

Table 81

Numbers of Students Responding to Items 50-62 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item												
	50	51	52	53	54	55	56	57	58	59	60	61	62
Role	50	14	5	0	6	26	29	23	48	42	27	8	56
Goal	42	11	4	2	4	33	29	28	46	47	25	7	43

$$\chi^2 = 6.80$$

$$df = 12$$

The null hypothesis was not rejected since the computed chi square value of 6.80 was less than the critical value of 21.02. There was not a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice relative to their greatest personal satisfaction received at this college.

Table 82

Numbers of Students Responding to Items 50-62 Who Were Classified
on the Basis of University Academic Performance

Classification	Item												
	50	51	52	53	54	55	56	57	58	59	60	61	62
Role	38	11	4	2	6	25	27	26	38	38	18	10	42
Goal	54	14	5	1	4	34	31	25	56	51	34	5	57

$$\chi^2 = 8.73$$

$$df = 12$$

The null hypothesis was not rejected since the computed chi square value of 8.73 was less than the critical value of 21.02. There was not a significant difference between the role and goal motivated students as classified on the basis of academic performance relative to their greatest personal satisfaction received at this college.

Table 83

Numbers of Students Responding to Items 50-62 Who Were
Classified on the Basis of Development of
Vocational Plans

Classification	Item												
	50	51	52	53	54	55	56	57	58	59	60	61	62
Role	14	2	1	0	1	9	6	5	11	9	5	1	16
Goal	78	23	8	2	9	50	52	46	83	80	47	14	83

$$\chi^2 = 5.08$$

$$df = 12$$

The null hypothesis was not rejected since the computed chi square value of 5.08 was less than the critical value of 21.02. There was not a significant difference between the role and goal motivated students as classified on the basis of development of vocational plans relative to their greatest personal satisfaction received at this college.

Table 84

Numbers of Students Responding to Items 50-62 Who Were
Classified on the Basis of the Composite Profile

Classification	Item												
	50	51	52	53	54	55	56	57	58	59	60	61	62
Role	36	8	3	0	2	22	20	14	34	30	20	3	43
Goal	56	17	6	2	8	37	38	37	60	59	32	12	56

$$\chi^2 = 8.93$$

$$df = 12$$

The null hypothesis was not rejected since the computed chi square value of 8.93 was less than the critical value of 21.02. There was not a significant difference between the role and goal motivated students as classified on the basis of their composite profile relative to their greatest personal satisfaction received at this college.

Items 63-74: Indicate the reasons you feel which are very important in selecting a life career:

- 63. Job openings available
- 64. Rapid advancement
- 65. High anticipated earnings
- 66. Respected occupation
- 67. Independence
- 68. Chance for steady progress
- 69. Contribution to society
- 70. Avoid pressure
- 71. Work with ideas
- 72. Be helpful to others
- 73. Work with people
- 74. Intrinsic interest in field

Null hypothesis 21. There is no significant difference in reasons felt important in selecting a life career between students who

are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 85 through 88 contain the numbers of responses to items 63 through 74 and the computed chi square. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With eleven degrees of freedom, a chi square of 19.67 is needed to be significant at the .05 level.

Table 85

Numbers of Students Responding to Items 63-74 Who Were
Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Item											
	63	64	65	66	67	68	69	70	71	72	73	74
Role	43	14	24	32	40	19	42	9	34	49	46	47
Goal	40	10	22	33	39	23	35	10	36	44	44	49

$$\chi^2 = 2.12 \quad df = 11$$

The null hypothesis was not rejected since the computed chi square value of 2.12 was less than the critical value of 19.67. There was not a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of

choice relative to reasons considered important in selecting a life career.

Table 86

Numbers of Students Responding to Items 63-74 Who Were Classified on the Basis of University Academic Performance

Classification	Item											
	63	64	65	66	67	68	69	70	71	72	73	74
Role	39	10	20	26	38	18	34	9	35	39	40	43
Goal	44	14	26	39	41	24	43	10	35	54	50	53

$$\chi^2 = 2.44$$

$$df = 11$$

The null hypothesis was not rejected since the computed chi square value of 2.44 was less than the critical value of 19.67. There was not a significant difference between the role and goal motivated students as classified on the basis of academic performance relative to reasons considered important in selecting a life career.

Table 87

Numbers of Students Responding to Items 63-74 Who Were Classified on the Basis of Development of Vocational Plans

Classification	Item											
	63	64	65	66	67	68	69	70	71	72	73	74
Role	10	2	5	6	13	4	10	4	7	11	8	12
Goal	73	22	41	59	66	38	67	15	63	82	82	84

$$\chi^2 = 5.27$$

$$df = 11$$

The null hypothesis was not rejected since the computed chi square value of 5.27 was less than the critical value of 19.67. There was not a significant difference between the role and goal motivated students as classified on the basis of development of vocational plans relative to reasons considered important in selecting a life career.

Table 88

Numbers of Students Responding to Items 63-74 Who Were Classified on the Basis of the Composite Profile

Classification	Item											
	63	64	65	66	67	68	69	70	71	72	73	74
Role	29	7	14	24	28	14	30	8	22	37	32	35
Goal	54	17	32	41	51	28	47	11	48	56	58	61

$$\chi^2 = 3.12$$

$$df = 11$$

The null hypothesis was not rejected since the computed chi square value of 3.12 was less than the critical value of 19.67. There was not a significant difference between the role and goal motivated students as classified on the basis of their composite profile relative to reasons considered important in selecting a life career.

Hypotheses Related to Demographic Data

Following are the null hypotheses relating to demographic data.

Null hypothesis 22. There is no significant difference in the type of high school attended between students who are classified as

role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 89 through 92 contain the numbers of responses to demographic data relating to class of high school attended and the computed chi squares. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With three degrees of freedom, a chi square of 7.81 is needed to be significant at the .05 leve.

Table 89

Numbers of Students in Each Class of High School Who
Were Classified on the Basis of Curriculum
Choice or Lack of Choice

Classification	Class of School			
	AA	A	B	C
Role	38	11	8	4
Goal	32	15	7	3

$$\chi^2 = 1.20$$

$$df = 3$$

The null hypothesis was not rejected since the computed chi square value of 1.20 was less than the critical value of 7.81. There was not a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of

choice relative to the class of high school attended.

Table 90

Numbers of Students in Each Class of High School Who Were
Classified on the Basis of University
Academic Performance

Classification	Class of School			
	AA	A	B	C
Role	33	13	7	1
Goal	37	14	8	6

$$\chi^2 = 2.91$$

$$df = 3$$

The null hypothesis was not rejected since the computed chi square value of 2.91 was less than the critical value of 7.81. There was not a significant difference between the role and goal motivated students as classified on the basis of academic performance relative to the class of high school attended.

Table 91

Numbers of Students in Each Class of High School Who Were
Classified on the Basis of Development of
Vocational Plans

Classification	Class of School			
	AA	A	B	C
Role	11	4	3	1
Goal	59	23	12	6

$$\chi^2 = .22$$

$$df = 3$$

The null hypothesis was not rejected since the computed chi square value of .22 was less than the critical value of 7.81. There was not a significant difference between the role and goal motivated students as classified on the basis of their development of vocational plans relative to the class of high school attended.

Table 92

Numbers of Students in Each Class of High School Who Were Classified on the Basis of the Composite Profile

Classification	Class of School			
	AA	A	B	C
Role	27	8	6	4
Goal	43	17	9	3
$\chi^2 = 1.48$		df = 3		

The null hypothesis was not rejected since the computed chi square value of 1.48 was less than the critical value of 7.81. There was not a significant difference between the role and goal motivated students as classified on the basis of their composite profile relative to the class of high school attended.

Null hypothesis 23. There is no significant difference in high school academic performance between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice

- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 93 through 96 contain the numbers of responses to demographic data relating to high school academic performance. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With 129 degrees of freedom, a t of 1.96 is needed to be significant at the .05 level.

On Table 93, page 168, the null hypothesis was not rejected since the computed t value of .23 was less than the critical value of 1.96. There was not a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice relative to high school academic performance.

On Table 94, page 169, the null hypothesis was rejected since the computed t value of 17.84 was greater than the critical value of 1.96. There was a significant difference between the role and goal motivated students as classified on the basis of university academic performance relative to high school academic performance.

On Table 95, page 170, the null hypothesis was not rejected since the computed t value of .10 was less than the critical value of 1.96. There was not a significant difference between the role and goal motivated students as classified on the basis of development of vocational plans relative to high school academic performance.

Table 93

Comparison of High School Academic Performance and Motivation
Based Upon Curriculum Choice or Lack of Choice

High School Grade Point Average	Classification	
	Role	Goal
1.10	0	1
1.30	3	0
1.50	2	0
1.60	1	1
1.80	3	2
2.00	2	4
2.10	4	4
2.30	11	5
2.50	1	5
2.60	4	4
2.80	4	5
3.00	5	6
3.10	7	7
3.30	3	4
3.50	2	3
3.60	6	6
3.80	8	3
4.00	3	2
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N	69	62
Mean	2.80	2.83
Variance	5.81	4.21
S.D.	.76	.64

$$t = .23$$

$$df = 129$$

Table 94

Comparison of High School Academic Performance and Classification
Based Upon University Academic Performance

High School Grade Point Average	Classification	
	Role	Goal
1.10	1	-
1.30	3	-
1.50	2	-
1.60	2	-
1.80	5	-
2.00	6	-
2.10	8	-
2.30	16	-
2.50	6	-
2.60	8	-
2.80	5	4
3.00	-	11
3.10	-	14
3.30	-	7
3.50	-	5
3.60	-	12
3.80	-	11
4.00	-	5
N	62	69
Mean	2.18	3.38
Variance	1.67	1.26
S.D.	.41	.36

t = 17.84

df = 129

Table 95

Comparison of High School Academic Performance and Motivation
Based Upon Development of Vocational Plans

High School Grade Point Average	Classification	
	Role	Goal
1.10	0	1
1.30	2	1
1.50	0	2
1.60	1	1
1.80	1	4
2.00	0	6
2.10	2	6
2.30	1	15
2.50	0	6
2.60	2	6
2.80	1	8
3.00	1	10
3.10	1	13
3.30	1	6
3.50	1	4
3.60	2	10
3.80	3	8
4.00	1	4
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N	2	111
Mean	2.80	2.81
Variance	7.81	4.58
S.D.	.88	.67

 $t = .10$
 $df = 129$

On Table 96, page 172, the null hypothesis was rejected since the computed t value of 4.20 was greater than the critical value of 1.96. There was a significant difference between the role and goal motivated students as classified on the basis of their composite profile relative to high school academic performance.

Null hypothesis 24. There is no significant difference in academic ability as measured by college entrance examinations between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 97 through 100 contain the numbers of responses to demographic data relating to academic ability as measured by college entrance examinations. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With 129 degrees of freedom, a t of 1.96 is needed to be significant at the .05 level.

Verbal ability. In Table 97, page 173, the null hypothesis was not rejected since the computed t value of 1.78 on verbal ability was less than the critical value of 1.96. There was not a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice relative to verbal ability.

Table 96

Comparison of High School Academic Performance and Classification
Based Upon their Composite Profile

High School Grade Point Average	Classification	
	Role	Goal
1.10	1	0
1.30	1	2
1.50	2	0
1.60	1	1
1.80	4	1
2.00	6	0
2.10	6	2
2.30	15	1
2.50	6	0
2.60	6	2
2.80	6	3
3.00	6	5
3.10	7	7
3.30	3	4
3.50	3	2
3.60	5	7
3.80	3	8
4.00	2	3
N	83	48
Mean	2.62	3.13
Variance	4.26	4.76
S.D.	.65	.69

 $t = 4.20$
 $df = 129$

Table 97

Comparison of Academic Ability and Classification Based
Upon Curriculum Choice or Lack of Choice

Stanine	Verbal		Quantitative	
	Role	Goal	Role	Goal
9	2	0	5	10
8	7	7	8	4
7	14	7	10	8
6	10	12	14	7
5	17	7	6	5
4	7	17	8	6
3	7	7	11	15
2	3	4	3	5
1	2	1	4	2
N	69	62	69	62
Mean	5.42	5.00	5.33	5.25
Variance	3.57	3.27	5.01	6.12
S.D.	1.88	1.81	2.24	2.47
	t = 1.29		t = .18	
	df = 129		df = 129	

Quantitative ability. The null hypothesis was not rejected since the computed t value of 1.56 on quantitative ability was less than the critical value of 1.96. There was not a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice relative to quantitative ability.

Table 98

Comparison of Academic Ability and Classification Based
Upon University Academic Performance

Stanine	Verbal		Quantitative	
	Role	Goal	Role	Goal
9	1	1	3	12
8	4	10	1	11
7	3	18	6	12
6	6	16	11	10
5	13	11	5	6
4	19	5	7	7
3	8	6	16	10
2	6	1	8	0
1	2	1	5	0
N	62	69	62	69
Mean	4.46	5.89	4.27	6.21
Variance	3.10	2.82	4.62	4.55
Std. Dev.	1.76	1.68	2.15	2.13
	$t = 4.75$		$t = 5.18$	
	$df = 129$		$df = 129$	

Verbal ability. The null hypothesis was rejected since the computed t value of 4.75 was greater than the critical value of 1.96. There was a significant difference between the role and goal motivated students as classified on the basis of university academic performance relative to verbal ability.

Quantitative ability. The null hypothesis was rejected since the computed t value of 5.18 was greater than the critical value of 1.96. There was a significant difference between the role and goal motivated students as classified on the basis of university academic performance relative to quantitative ability.

Table 99.

Comparison of Academic Ability and Classification Based
Upon Development of Vocational Plans

Stanine	Verbal		Quantitative	
	Role	Goal	Role	Goal
9	0	2	2	13
8	3	11	3	9
7	4	17	6	12
6	7	15	3	18
5	4	20	1	10
4	0	24	1	13
3	1	13	2	24
2	0	7	2	6
1	1	2	0	6
N	20	111	20	111
Mean	5.90	5.09	6.05	5.16
Variance	2.83	3.49	4.78	5.16
Std. Dev.	1.68	1.86	2.18	2.35
	$t = 1.78$		$t = 1.56$	
	$df = 129$		$df = 129$	

Verbal ability. The null hypothesis was not rejected since the computed t value of 1.78 on verbal ability was less than the critical value of 1.96. There was not a significant difference between the role and goal motivated students as classified on the basis of development of vocational plans relative to verbal ability.

Quantitative ability. The null hypothesis was not rejected since the computed t value of 1.56 on quantitative ability was less than the critical value of 1.96. There was not a significant difference between the role and goal motivated students as classified on the basis of development of vocational plans relative to quantitative ability.

The following is an analysis of Table 100, page 177.

Verbal ability. The null hypothesis was rejected since the computed t value of 2.84 on verbal ability was greater than the critical value of 1.96. There was a significant difference between the role and goal motivated students as classified on the basis of their composite profile relative to verbal ability.

Quantitative ability. The null hypothesis was not rejected since the computed t value of 1.92 on quantitative ability was less than the critical value of 1.96. There was not a significant difference between the role and goal motivated students as classified on the basis of their composite profile relative to quantitative ability.

Table 100

Comparison of Academic Ability and Classification
Based Upon the Composite Profile

Stanine	Verbal		Quantitative	
	Role	Goal	Role	Goal
9	1	1	4	11
8	5	9	7	5
7	13	8	10	8
6	11	11	9	12
5	11	13	4	7
4	1	23	5	9
3	4	10	6	20
2	0	7	2	6
1	2	1	1	5
N	48	83	48	83
Mean	5.81	4.87	5.81	5.00
Variance	3.00	3.42	4.41	5.95
Std. Dev.	1.73	1.85	2.10	2.43

$$t = 2.84$$

$$df = 129$$

$$t = 1.92$$

$$df = 129$$

Null hypothesis 25. There is no significant difference in choice of major field of study between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance

- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 101 through 104 present the numbers of students who were classified as role or goal motivated and their major field of study. Related majors were grouped together. Data was also tabulated for each of the five academic Colleges and General Studies at Montana State University. Due to the small numbers in several categories, no statistics were tabulated for hypothesis 25, but the data will be discussed for each of the four tables in the discussion of results at the end of this chapter.

Table 101, page 179, presented the numbers of students who were classified as role or goal motivated based upon curriculum choice or lack of choice. Those who had chosen a specific curriculum and who had no trouble choosing their curriculum were classified as goal motivated. The remaining students were classified as role motivated. By nature of this definition, all General Studies students were classified as role motivated.

Agriculture, home economics, and mathematics were curricula predominated by goal motivated students. There was no curricula which had a predominance of role motivated students other than General Studies. In looking at the five academic colleges at Montana State University, it was found that the Colleges of Agriculture and Professional Schools were comprised primarily of goal motivated students. The College of

Table 101

Major Field of Study as Indicated by Students Classified
on the Basis of Curriculum Choice or Lack of Choice

Major Field of Study	Classification	
	Role	Goal
Agriculture	3	7
Architecture/Art	1	2
Commerce	6	10
Education	10	5
Engineering	7	7
English/Modern Language	1	1
Film and Television	0	2
General Studies	24	0
Government/History	3	1
Home Economics	0	8
Mathematics	0	4
Natural Science	3	0
Nursing	5	8
Philosophy	1	0
Physical Science	0	1
Pre-Med	1	0
Sociology	4	5
Theatre	0	1
Composite of Majors by College:		
Agriculture	3	7
General Studies	24	0
Education	10	5
Engineering	7	7
Letters and Science	13	13
Professional Schools	12	30

Letters and Science and the College of Engineering were evenly split according to direction of motivation. The College of Education had a ratio of two role motivated students to one goal motivated student.

The total numbers indicated that a majority of students were in a curriculum other than General Studies but many of these people had trouble or were having trouble selecting an appropriate curriculum.

Table 102, page 181, presented the numbers of students who were classified as role or goal motivated based upon university academic performance. Students scoring below the mean were classified as role motivated, while those scoring above the mean were classified as goal motivated.

Students in the College of Engineering tended to be goal motivated as the majority of them scored above the mean. The students in the College of Agriculture tended to be role motivated, scoring below the university mean. The remaining Colleges and major fields of study were fairly evenly balanced between direction of motivation.

Table 103, page 182, presented the numbers of students who were classified as role or goal motivated based upon the development of vocational plans. From the total of 131 students, 111 indicated specific vocational plans and thus were classified as goal motivated. Only twenty indicated a lack of vocational plans and were classified as role motivated.

Agriculture, commerce, education, engineering, home economics,

Table 102

Major Field of Study as Indicated by Students Classified
on the Basis of University Academic Performance

Major Field of Study	Classification	
	Role	Goal
Agriculture	7	3
Architecture/Art	2	1
Commerce	7	9
Education	7	8
Engineering	3	11
English/Modern Language	1	1
Film and Television	0	2
General Studies	14	10
Government/History	2	2
Home Economics	4	4
Mathematics	1	3
Natural Science	2	1
Nursing	5	8
Philosophy	1	0
Physical Science	1	0
Pre-Med	0	1
Sociology	4	5
Theatre	1	0

Composite of Majors by College:

Agriculture	7	3
General Studies	14	10
Education	7	8
Engineering	3	11
Letters and Science	13	13
Professional Schools	25	24

Table 103

Major Field of Study as Indicated by Students Classified
on the Basis of Development of Vocational Plans

Major Field of Study	Classification	
	Role	Goal
Agriculture	1	9
Architecture/Art	0	3
Commerce	0	16
Education	0	15
Engineering	3	11
English/Modern Language	0	2
Film and Television	0	2
General Studies	10	14
Government/History	1	3
Home Economics	1	7
Mathematics	1	3
Natural Science	2	1
Nursing	0	13
Philosophy	1	0
Physical Science	0	1
Pre-Med	0	1
Sociology	0	9
Theatre	0	1

Composite of Majors by College:

Agriculture	1	9
General Studies	10	14
Education	0	15
Engineering	3	11
Letters and Science	5	21
Professional Schools	1	41

nursing, and sociology students were predominantly goal motivated. No major field of study was predominantly role motivated.

Table 104, page 184, presented the numbers of students who were classified as role or goal motivated based upon their composite profile. Agriculture, commerce, home economics, nursing, and sociology were major fields dominated by goal motivated students. Students in General Studies tended to be role motivated (two to one, role over goal), while about one-third of the students in the College of Letters and Science were role motivated.

Null hypothesis 26. There is no significant difference in sex between students who are classified as role or goal motivated as to:

- a. Curriculum choice or lack of choice
- b. University academic performance
- c. Development of vocational plans
- d. Composite role-goal motivation profile

Tables 105 through 108 contain the numbers of responses to demographic data relating to the sex of the students and the computed chi squares. Each section of the null hypothesis (a,b,c,d) is considered separately in each table. With one degree of freedom, a chi square of 3.84 is needed to be significant at the .05 level.

Table 104

Major Field of Study as Indicated by Students Classified
on the Basis of Their Composite Profile

Major Field of Study	Classification	
	Role	Goal
Agriculture	1	9
Architecture/Art	0	3
Commerce	3	13
Education	6	9
Engineering	6	8
English/Modern Language	1	1
Film and Television	0	2
General Studies	16	8
Government/History	2	2
Home Economics	1	7
Mathematics	1	3
Natural Science	3	0
Nursing	4	9
Philosophy	1	0
Physical Science	0	1
Pre Med	1	0
Sociology	2	7
Theatre	0	1
Composite of Majors by College:		
Agriculture	1	9
General Studies	16	8
Education	6	9
Engineering	6	8
Letters and Science	11	22
Professional Schools	8	27

Table 105

Sex of Students Who Were Classified on the Basis of
Curriculum Choice or Lack of Choice

Classification	Sex	
	Male	Female
Role	27	42
Goal	26	36

$$\chi^2 = 2.20$$

$$df = 1$$

The null hypothesis was not rejected since the computed chi square of 2.20 was less than the critical value of 3.84. There was not a significant difference between the role and goal motivated students as classified on the basis of curriculum choice or lack of choice relative to sex.

Table 106

Sex of Students Who Were Classified on the Basis
of University Academic Performance

Classification	Sex	
	Male	Female
Role	31	31
Goal	22	47

$$\chi^2 = 3.72$$

$$df = 1$$

The null hypothesis was not rejected since the computed chi square of 3.72 was less than the critical value of 3.84. There was not

a significant difference between the role and goal motivated students as classified on the basis of academic performance relative to sex.

Table 107

Sex of Students Who Were Classified on the Basis of
Development of Vocational Plans

Classification	Sex	
	Male	Female
Role	11	9
Goal	42	19

$$\chi^2 = 1.42$$

$$df = 1$$

The null hypothesis was not rejected since the computed chi square of 1.42 was less than the critical value of 3.84. There was not a significant difference between the role and goal motivated students as classified on the basis of development of vocational plans relative to sex.

Table 108

Sex of Students Who Were Classified on the Basis
of Their Composite Profile

Classification	Sex	
	Male	Female
Role	16	32
Goal	37	46

$$\chi^2 = 1.16$$

$$df = 1$$

The null hypothesis was not rejected since the computed chi square of 1.16 was less than the critical value of 3.84. There was not a significant difference between the role and goal motivated students as classified on the basis of their composite profile, relative to sex.

DISCUSSION OF RESULTS

This section presents a summary of the significant findings which emerged from this study.

Personality Characteristics and Self-Concept

Table 109, page 188, presents a summary of the least-squares analysis of variance for the personality characteristics and self-concept as measured by the California Psychological Inventory.

The analysis of variance procedures produced three separate comparisons. The first was among the CPI subtests; the second between the groups, role and goal; and the third was the interaction among the two groups and the CPI subtests.

The computed F value was significant among the eighteen CPI subtests for all four classes. This result was to be expected as the number of items varied for each subtest, ranging from twenty-two items on the Flexibility subtest to fifty-six items on the Social Presence subtest. The means of the subtests differed significantly simply

Table 109

Summary of the Least-Squares Analysis of Variance Related to Personality Characteristics and Self-Concept as Measured by the CPI

Class on CPI	Computed F for Each Category of Role and Goal							
	Curriculum Choice		Academic Performance		Vocational Plans		Composite	
	df	F	df	F	df	F	df	F
<u>CPI - Class I</u>								
CPI Subtests	5	213.24*	5	213.83*	5	117.17*	5	204.12*
Groups	1	.78	1	7.25*	1	5.52*	1	.00
Subtests X Groups	5	1.99	5	.45	5	1.89	5	1.57
Remainder	774		774		774		774	
<u>CPI - Class II</u>								
CPI Subtests	5	208.06*	5	218.17*	5	106.46*	5	195.24*
Groups	1	.04	1	38.42*	1	14.84*	1	4.84*
Subtests X Groups	5	.51	5	1.28	5	.53	5	.88
Remainder	774		774		774		774	
<u>CPI - Class III</u>								
CPI Subtests	2	384.73*	2	423.42*	2	202.03*	2	370.14*
Groups	1	1.10	1	40.50*	1	.19	1	11.41*
Subtests X Groups	2	.03	2	.57	2	1.14	2	.20
Remainder	387		387		387		387	
<u>CPI - Class IV</u>								
CPI Subtests	2	222.68*	2	223.64*	2	104.24*	2	204.08*
Groups	1	2.17	1	4.84*	1	.21	1	.81
Subtests X Groups	2	.77	2	1.73	2	1.47	2	.05
Remainder	387		387		387		387	

* F significant at the .05 level

because of this difference in number of items.

The following discussion will focus on the comparison between the two groups, role and goal, as to the four means of classification.

Curriculum choice. Classifying students as role or goal motivated on the basis of curriculum choice or lack of choice produced no significant results on any of the four classes of the CPI.

Academic performance. Classifying students on the basis of academic performance did produce significant differences between the two groups, role and goal, on each of the four classes of the CPI.

For each of the six subtests in Class I: Measures of Poise, Ascendancy, and Self-Assurance, the goal motivated students had higher means than did the role motivated students. The goal motivated students obtained higher scores on the subtests relating to self-concept and self-esteem. The goal motivated students tended to be more outgoing, sociable, and dominant. They also saw themselves as persons of worth and were relatively free from self-doubt. The role motivated students were less inclined to be leaders, somewhat more reserved socially, and more self-abasing. These results support what Galinsky (1966) stated about the effect of self-concept and the process of making a vocational choice. He pointed out that self-doubts and feelings of unworthiness made vocational decisions extremely difficult. When no firm identity has been achieved, one is constantly besieged by questions about who he

is and what he can do. Often, he comes up with the answer that he cannot do anything.

For each of the six subtests in Class II: Measures of Socialization, Maturity, and Responsibility, the goal motivated students scored higher than did the role motivated students. The goal motivated students differed from the role motivated students in their levels of accepting responsibility, social maturity, and self-control in that they scored higher on the subtests relating to these characteristics.

For each of the three subtests in Class III: Measures of Achievement Potential and Intellectual Efficiency, the goal motivated students scored higher than did the role motivated students. The subtests in this class included Achievement via Conformance, Achievement via Independence, and Intellectual Efficiency. The role motivated students obtained lower scores than did the goal motivated students on the Achievement via Independence subtest. This result did not support Glasser's (1972) premise that role motivated students were more independent than goal motivated students. One would expect that the goal motivated students be more concerned with conforming while the role motivated students would be more independent.

The goal motivated students scored higher than the role motivated students on two of the three subtests in Class IV: Measures of Intellectual and Interest Modes. The goal motivated students tended to be more psychological minded and feminine as related to masculinity

or femininity of interests, while the role motivated students were more flexible in terms of adaptability of a person's thinking and social behavior.

Development of vocational plans. Classifying students on the basis of development of vocational plans produced significant differences between the two groups, role and goal, on Classes I and II of the CPI.

On Class I: Measures of Poise, Ascendancy, and Self-Assurance, the goal motivated students scored higher on all of the subtests except for Social Presence. Again, this indicated that the goal motivated students possessed higher levels of self-concept, that is they had higher levels of self-assurance and confidence.

On Class II: Measures of Socialization, Maturity, and Responsibility, the goal motivated students scored higher on all subtests except for self-control. The difference was slight but the role motivated students tended to be more patient, thoughtful, and deliberate. The goal motivated students tended to be more responsible and conscientious, socially mature, tolerant, and more concerned with making a good impression.

Composite profile. Classifying students on the basis of their composite role-goal motivation profile produced significant differences in Classes II and III of the CPI.

The role motivated students scored higher on all of the subtests for Class II: Measures of Socialization, Maturity, and Responsibility, except for Good Impression. These results were not consistent with the other means of classifying students as role or goal motivated. These results would indicate that the role motivated students rather than the goal motivated students were more willing to accept responsibility, more socially mature, and had higher levels of self-control.

In looking at the composite profile for Class III: Measures of Achievement Potential and Intellectual Efficiency, it was found that the role motivated students scored higher on all three subtests, Achievement via Conformance, Achievement via Independence, and Intellectual Efficiency. For Class III, as for Class II, there were no consistent results. The means of classifying each group produced varying results on the subtests in this class.

In summary, classifying students as role motivated or goal motivated using the four criteria in this study: (1) curriculum choice, (2) university academic performance, (3) development of vocational plans, and (4) the composite role-goal motivation profile produced several significant differences between the two groups. It must be pointed out that each of the four means of classification of role and goal produced somewhat different results but some definite trends resulted.

The goal motivated students tended to be more outgoing,

sociable, and dominant. Their levels of self-esteem and self-concept were higher than those of the role motivated students. The role motivated students were less inclined to be leaders, somewhat more reserved socially, and tended to be more self-abasing. No significant differences were found between the two groups relating to methods of achievement, but the goal motivated students tended to be more concerned with doing the "accepted thing" and creating a good impression. The role motivated students tended to be more flexible and less rigid in nature than were the goal motivated students.

Educational Goals and Values

Table 110, page 194, presents a summary of computed chi square values for the educational-vocational goals and values as measured by the Survey of Student Interests and Values.

The computed chi square values produced significant differences on eight items on the Survey.

Curriculum choice. Classification of students as role or goal motivated based upon curriculum choice or lack of choice produced statistically significant values on the following four items from the Survey: (1) satisfaction with curriculum; (2) time of selection of occupational goals; (3) number of times their vocational plans had been changed; and (4) factors influencing career decisions.

Table 110

Summary of Computed Chi Squares Relating to Educational-Vocational Goals and Values as Measured by the Survey of Student Interests and Values

Item	Computed Chi Square for Each Category of Role and Goal			
	Curriculum Choice	Academic Performance	Vocational Plans	Composite
8-Reason for going to college	3.99	3.33	7.48	5.39
9-Satisfaction with curriculum	18.92*	6.06	4.39	1.41
12-Attitude toward grades	2.50	14.20*	.44	4.99
13-Highest degree expected	7.92	3.35	8.83	13.34
14-Continue education beyond bachelor's	1.83	1.17	.96	1.44
16-Future occupational plans	5.63	8.30	11.70	10.14
17-Personal philosophy of higher education	4.30	5.02	17.86*	9.36*
18-Time of selection of occupational goals	21.55*	1.12	39.39*	16.53*
20-Responsibility desired	1.11	3.48	.76	.78
21-College expectations	4.67	11.62*	3.36	6.98
22-Attitude toward planning	2.24	3.99	4.34	3.30
23-Number of times vocational plans changed	24.11*	5.05	49.76*	30.75*
24-Factors influencing career decision	21.67*	7.00	25.39*	17.64*
25 to 36-Reasons for attending college	6.80	13.66	5.76	11.48
37 to 49-Personal objectives	11.67	10.17	23.07*	16.95
50 to 62-Personal satisfaction from college	6.80	8.73	5.08	8.93
63 to 74-Reasons for selecting career	2.12	2.44	5.27	3.12

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* Computed chi square values significant at the .05 level

Item 9 asked the students to indicate their degree of satisfaction with their present curriculum. Fifty per cent of the goal motivated students indicated that they were very satisfied as compared to 17 per cent of the role motivated students. Twenty-eight per cent of the role motivated students indicated they were somewhat dissatisfied with their curriculum choice, while 10 per cent of the goal motivated students were dissatisfied.

Item 18 asked the students to indicate when they first knew what they wanted to do as their life's work. Forty-nine per cent of the role motivated students indicated that they still were not sure, as compared to 11 per cent of the goal motivated students. Seventy-one per cent of the goal motivated students knew what they wanted to do by the time they had completed high school, as compared to 40 per cent of the role motivated students.

Item 23 asked the students to indicate how often they had changed their mind about their future vocational plans. Twenty-four per cent of the role motivated students still had no vocational plans, while only 2 per cent of the goal motivated students had no plans. Thirty-seven per cent of the goal motivated students had not changed their vocational plans, while 9 per cent of the role motivated students had not changed their plans.

Item 24 asked which factors of the eight listed played the most important part in their career decision. Twenty-two per cent of the

role motivated students indicated no vocational choice, while only 2 per cent of the goal motivated students indicated no choice. The majority of both groups indicated that interest in the career area played the most important part in their career decision.

Academic performance. Classification of students as role or goal motivated based upon university academic performance produced statistically significant values on the following two items from the Survey: (1) attitude toward grades and (2) college expectations.

Item 12 asked the students to indicate the most important reason for their satisfaction or dissatisfaction with the kind of academic work they were doing in college. Fifty-seven per cent of the goal motivated students indicated that their grades approximately matched their abilities, while 32 per cent of the role motivated students felt this way. Twice as many of the role motivated students felt that their grades were lower than their abilities.

Item 21 asked what was the most important thing that a person should get out of college. Fifty-eight per cent of the role motivated students felt that training for a profession was most important, while 30 per cent of the goal motivated students felt this way. One half of the goal motivated students saw college as a means to personal maturity, while 28 per cent of the role motivated students indicated this.

Vocational plans. Classification of students as role or goal motivated on the basis of their future vocational plans produced significant values on five items from the Survey: (1) personal philosophy of higher education; (2) time of selection of occupational goals; (3) number of times vocational plans were changed; (4) factors influencing career decisions; and (5) personal objectives.

Item 17 provided four descriptive statements of "personal philosophies" of higher education. Thirteen per cent of the goal motivated students saw a college education as preparation for an occupation, while none of the role motivated students indicated this choice. The role motivated students stressed a combination of career preparation and pursuit of knowledge and extracurricular activities.

Item 18 asked when you first knew what you wanted to do as your life's work. Ninety per cent of the role motivated students indicated that they were not sure of their life's work at the present, while only 20 per cent of the goal motivated students had known what they wanted to do by the time they were through high school.

Item 23 asked the students how often they had changed their mind about their future vocational plans. Sixty-three per cent of the role motivated students still had not decided, while only 5 per cent of the goal motivated students had not decided.

Item 24 listed eight factors which may have played an important part in making a career decision. Forty-five per cent of the role

motivated students had made no career decision, while 7 per cent of the goal motivated students had not. Again, interest in the area played the most important part for both groups.

Items 37-49 provided several personal objectives. Twice as many role motivated as goal motivated students felt that to develop a meaningful philosophy of life was important. The goal motivated students put more emphasis than did the role motivated students on keeping up with political affairs.

Composite profile. Classification of students as role or goal motivated on the basis of their composite profile produced significant values on four items: (1) personal philosophy of higher education; (2) time of selection of occupational plans; (3) number of times vocational plans were changed; and (4) factors influencing career decisions.

Item 17 provided four descriptive statements of "personal philosophies" of higher education. Sixteen per cent of the goal motivated students saw a college education as preparation for an occupation, while only 2 per cent of the role motivated students did. The role motivated students put more emphasis on the pursuit of knowledge.

Item 18 asked when you first knew what you wanted to do as your life's work. Fifty-two per cent of the role motivated students were still not sure, while 18 per cent of the goal motivated students

were not sure.

Item 23 asked the students how often they had changed their mind about their future vocational plans. Thirty-two per cent of the role motivated students as compared to 2 per cent of the goal motivated students had made no future vocational plans.

Item 24 listed eight factors which may have played an important part in making a career decision. Twenty-six per cent of the role motivated students had made no career decisions, while only 5 per cent of the goal motivated students had not made a career decision. The goal motivated students stressed interest in the field and opportunities in the field. Sixty per cent of the role motivated students felt that interest in the area was most important.

In summary, it was found that those who had selected a specific major field of study were more satisfied with their choice than those who had not made a specific choice. The role motivated students exhibited tendencies to be undecided as to future vocational plans and were concerned with learning for the sake of learning and in developing a meaningful philosophy of life. The goal motivated students tended to view college as training for an occupation, had developed specific future vocational plans, and were more interested in vocational opportunities in the field than were the role motivated students.

Demographic Data

Table 111, page 201, presents a summary of chi square and t-test values for the demographic data collected on the students in this study.

Curriculum choice. Classification of students as role motivated or goal motivated on the basis of curriculum choice produced no significant differences on class of high school attended, high school grade point average, academic ability, or sex.

Academic performance. Classification of students as role motivated or goal motivated on the basis of university academic performance produced significant differences between the two groups on high school grade point average and academic ability.

It was found that students who performed well academically in high school did well academically in college. Students who did poorly in high school tended to do poorly in college. The mean grade point average in college for the role motivated student was 2.18 and for the goal motivated student 3.38. These results concur with many other studies dealing with academic ability and academic performance.

Goal motivated students scored significantly higher than did the role motivated students as classified on the basis of university academic performance on tests of verbal and quantitative ability.

Students with high levels of academic ability performed well

Table 111

Summary of Statistics Related to Demographic Data

Item	Test	Computed Statistics for Each Category of Role and Goal			
		Curriculum Choice	Academic Performance	Vocational Plans	Composite
Class of School	χ^2	1.20	2.91	.22	1.48
High School G.P.A.	t	.23	17.84*	.10	4.20*
Academic Ability					
Verbal	t	1.29	4.75*	1.78	2.84*
Quantitative	t	.18	5.18*	1.56	1.92
Sex	χ^2	2.20	3.72	1.42	1.16

* Computed values significant at the .05 level

academically at the university.

Vocational plans. Classification of students as role motivated or goal motivated on the basis of development of vocational plans produced no significant differences between the two groups, role and goal.

Composite profile. Classification of students as role motivated or goal motivated on the basis of their composite profile produced statistically significant differences between the two groups, role and goal, on high school grade point average and verbal ability as measured by college entrance examinations.

On the basis of their composite profile, the goal motivated students performed significantly higher academically with a high school grade point average of 3.13, as compared to a 2.62 for the role motivated students.

The role motivated students had higher verbal scores than did the goal motivated students as classified on the basis of their composite profile. The mean stanine score for the role motivated students was 5.81 and for the goal motivated students 4.87.

In summary, demographic data were similar to data describing the personality characteristics and self-concept and the educational goals and values, in that the means of classifying the students by each of the four criteria produced somewhat different and inconsistent

results. The results from the demographic data did show that the students in the study were consistent academically. In general, the students who did well in academic endeavors in the past did well at the university. Also, those who had high levels of academic ability put their ability to good use in the university.

Major Field of Study

Due to the small number of students in each category, no statistics were computed for the major field of study, but a summary of the data follows.

Classified on the basis of curriculum choice or lack of choice, it was found that students enrolled in agriculture, home economics, and mathematics seemed to be predominantly goal motivated. There was no curricula which had a predominance of role motivated students other than General Studies. Examination of the data for the five academic Colleges at Montana State University revealed that the Colleges of Agriculture and Professional Schools were comprised primarily of goal motivated students. The College of Letters and Science and the College of Engineering were evenly split according to direction of motivation. The College of Education had a ratio of two role motivated students to one goal motivated student.

The total numbers indicated that a majority of students were in a curriculum other than General Studies, but many of these people had trouble or were having trouble selecting an appropriate curriculum.

Classified on the basis of university academic performance, it was found that students in the College of Engineering tended to be goal motivated as the majority of them scored above the mean of this study group. The students in the College of Agriculture tended to be role motivated, scoring below the mean. The remaining Colleges and major fields of study were fairly evenly balanced between direction of motivation.

Classified on the basis of development of vocational plans, it was found that students enrolled in agriculture, commerce, education, engineering, home economics, nursing, and sociology were predominantly goal motivated. No major field of study was predominantly role motivated.

Classified on the basis of their composite profile, it was found that agriculture, commerce, home economics, nursing, and sociology were major fields of study dominated by goal motivated students. Students in General Studies tended to be role motivated (two to one, role over goal), while about one-third of the students in the College of Letters and Science were role motivated.

SUMMARY

The purpose of this chapter is to summarily present and analyze the data pertaining to this study. Each of the twenty-six hypotheses written for the study were described with regard to the degree of

significance for the data presented for each of the four means of classifying students: (1) curriculum choice or lack of choice; (2) university academic performance; (3) development of vocational plans; and (4) composite role-goal motivation profile.

In looking at the personality characteristics and self-concept of the role and goal motivated students, it was found that the goal motivated tended to be more outgoing, sociable, and dominant. Their levels of self-esteem and self-concept were higher than those of the role motivated students. The role motivated students were less inclined to be leaders, somewhat more reserved socially, and more self-abasing. No significant differences were found between the two groups relating to methods of achievement, but the goal motivated tended to be more concerned with doing the "accepted thing" and creating a good impression. The role motivated tended to be more flexible and less rigid in nature than were the goal motivated.

Upon examination of the education and vocational goals and values of the role and goal motivated students, it was found that those who had selected a specific major field of study were more satisfied with their choice than those who had not made a specific choice. The role motivated students exhibited tendencies to be undecided as to future vocational plans and were concerned with learning for the sake of learning, and in developing a meaningful philosophy of life. The goal motivated students tended to view college as training for an

occupation, and developed specific future vocational plans and were more interested in vocational opportunities in the field than were the role motivated students.

The means of classifying the students by each of the four criteria produced varying and sometimes inconsistent results for the demographic data as they did for the other data in the study. The results from the demographic data did show that the students in the study were consistent academically. In general, the students who did well in academic endeavors in the past did well in the university. Also, those who had high levels of academic ability achieved higher grade point averages in the university than did those with low levels of academic ability.

When selecting a curriculum, it was found that goal motivated students preferred agriculture, commerce, education, engineering, home economics, nursing, and sociology. No major field of study was predominantly preferred by role motivated students.

Chapter 5 contains a summary of the study with reference to conclusions and recommendations.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Chapter 5 contains a summary of this study, the conclusions, and the recommendations for further research.

SUMMARY

Several developments which have occurred during the past quarter century have produced a great deal of social unrest, particularly among the younger people in the Western world. Alienation, atomization, and the rejection of many time-honored social values were among the results. William Glasser (1972:37) described these events as a major cultural shift for most of the people involved; a shift described as one from goal motivation to role or identity motivation.

Historically, man has been primarily goal-directed. Survival was the primary goal of primitive man. The hostile environment forced primitive man into cooperating with one another in order to defend themselves against predatory animals, to obtain food, and to raise their young. When man did not cooperate, he often suffered and sometimes died.

As early man learned to cooperate, he gradually learned to enjoy the company of his fellow man. He became motivated to cooperate not only for survival but for pleasure. During this period of time, man developed the ability to become deeply involved with one another. Man

became more motivated toward role rather than toward the goal of survival. He lived in a society in which his human needs and human gratification--his identity--were his major concern. Over these thousands of years, this need for involvement with our fellow man became fixed in our nervous system. The times when man became uninvolved with his fellow man resulted in the pain of loneliness (Glasser, 1972:16).

The emphasis on role and goal once again changed as time went by.

As society became more civilized, man again became more goal oriented, Glasser (1972:20) stated that:

Men tended to give up their identity as it became necessary to work as a means of survival. Those in power persuaded the weaker ones to labor for them. In doing so, the pleasure-dominated role orientation gave way to a pain dominated goal orientation of survival. Once an adequate level of security was achieved it was possible to be concerned with role again but only for those few who were in power in the civilized survival society. For most men, it was a continuous struggle just to survive. They had no role or identity--independent or dependent.

Civilization forced most men to suppress, delay, or alter their need for involvement. As men suppressed their need for involvement to survive, goal effectively replaced role. In civilized societies most people have no identity and live in constant frustration because their need for involvement is unfulfilled (Glasser, 1972:21).

In order to gain some security and an independent role, many of those with no identity or minimal identity try to take on some

aspects of those in power at the time. In turn, they become more dependent upon the social order and less dependent upon themselves. The only identity possible for almost everyone in such a society is an identity narrowly related to work or class--a dependent role. This role depends on what one does rather than who one is (Glasser, 1972:25).

Suddenly, within the last quarter century, Western people have become much more concerned with gaining a successful identity based upon who they are and not on what they do. People became less anxious about fulfilling goals to obtain security from within the power structure and became more concerned with themselves as humans. They began to seek an independent role, their identity, before searching for goals (Glasser, 1972:27).

Marshall McLuhan (Playboy, March 1969) answered a question about youth and social unrest, "From Tokyo to Paris to Columbia, youth mindlessly acts its identity quest in the theatre of the streets searching not for goals but for roles, striving for an identity that eludes them."

People are still striving for goals, but they are goals which reinforce and enhance their independent role or identity. Glasser (1972:28) pointed out that identity or role is either totally independent of goal, or, if goal and role are related, role is more important.

Glasser went on to state that:

The shift to the identity society role sequence, in which the independent role comes first, is not limited to the more publicized

young: the hippies, the demonstrators, and the social dropouts. It is not so obvious in other people, but only a rare young person today is willing to subordinate his identity to security. Although many work and seem to be the same as young people of years ago, they are not. Affluence, political freedom, and television, the three building blocks of the identity society that led to the new role sequence, seem to be so firmly entrenched into our way of life that the young, knowing little except these three conditions, have no reason to give up their search for identity. Their search for independent roles and their demand for goals that reinforce their independent roles have caused great conflict within the weakened but still far from dead power structure (1972:39).

The shift from goal to role motivation has produced what Glasser (1972:37) termed as a cultural conflict. Many young people are role motivated while the institutions of our society--school, prisons, and families--operate as if goal takes precedence over role. The institutions are saying "subordinate yourself to the job to be done," while the young are saying "recognize me as a person or I will drop out or do no job at all."

This study was an attempt to identify demographic data, personality characteristics, and educational-vocational goals and values which would differentiate role motivated from goal motivated freshmen students at Montana State University. The problem was also to indicate what effect, if any, that a person's identity, or lack of identity and direction of motivation, role or goal, would have upon his ability to make a curriculum and vocational choice.

The definitions of role and goal, for the specific purposes of this study, differed somewhat from Glasser's (1972) definitions. The

basic concepts relating to identity and commitment as proposed by Glasser (1972) were maintained. These concepts related to the process of achieving an adequate personal identity (seeing one's self accurately and realistically), and the ability to make present and future commitments such as to curriculum, vocation, marriage, and the development of other important goals.

For the purposes of this study, students were classified as role or goal motivated on the basis of (1) curriculum choice or lack of choice, (2) university academic performance, (3) the development of vocational plans, and (4) their composite role-goal motivation profile which was developed on the basis of their responses to the first three means of classification.

The focus of the literature review was upon four areas:

- (1) personality and vocational development among college students;
- (2) differences between vocationally decided and undecided students;
- (3) self-concept, identity, and vocational development; and (4) goals, values, and vocational development of college students.

The summary of the literature relating to personality and vocational development among college students indicated that curriculum and vocational choice is not a single decision at a given point in time but a developmental process that takes place over a number of years.

Many factors, both intrinsic and extrinsic, affect the curriculum and vocational choices that college students make: family background,

job and school experiences, friends, and sex of the student all play a part in the choice. The individual's personality characteristics, needs, etc. also influence the decisions which are made and at which age these decisions are made.

The choices made during the first two years at college are quite tentative. Students often make one or two changes of curriculum before making a final commitment to a major field of study. It appeared that many students are entering college with a limited background and limited experiences and need the first year or two for personal and curriculum exploration.

The literature relating to differences between vocationally decided and undecided students revealed differences in some studies while other studies indicated few or no differences. In general, the vocationally undecided group of college students are quite heterogeneous in nature. Several studies indicated that undecided students, as a group, leaned toward the social sciences and humanities curricula. They exhibited more aggressive, sociable, and feminine characteristics than did the decided students. There seemed to be no significant sex differences between the decided and undecided students. Little difference was revealed in academic performance or ability but the undecided students tended to be more intellectually oriented. A few studies indicated specific personality differences such as levels of personal achievement desired and motivation toward work, with the undecided being

less motivated but more achievement oriented. There seemed to be no differences in levels of alienation or cultural estrangement between the two groups.

A large portion of the difference between the vocationally decided and undecided seemed to be accounted for by the differential rates of personal and vocational development. Some college freshmen are more capable than others of making a curriculum or vocational choice because they are at a stage in their development where they have the background, personal, and environmental data necessary to make an adequate choice.

The development or lack of development of an adequate self-concept or identity may have a great impact on the individual who is in the process of making a curriculum and vocational choice. As the individual progresses through various stages in life, he assimilates how others perceive him and he, in turn, formulates his own ideas of himself. If his self-concept is accurate, that is, he has an accurate picture of himself relating to interests, abilities, personality characteristics, etc., as well as a realistic concept of how others see him, then he is much more likely to make curriculum and vocational choices that will meet his present needs. If his self-concept is unrealistic and the level of self-esteem is low, he is more likely to make a poor choice, that is, one which is not compatible with his needs, interests, and abilities.

The literature revealed that a student's goals, values, attitudes, etc. have a definite impact upon the curriculum and vocation that he chooses. A given vocation seems to attract a particular type of person who shares with others in that field similar values, goals, expectations, and attitudes to many aspects of life.

When speaking of change, not all authors are in agreement as to whether or not there is a "new student." Most authors agreed that there has been a general shifting of values relating to marriage, family, jobs, and sex but the extent and full impact of this shift is not agreed upon. Several of the studies revealed that specific vocational areas are getting students similar in values and goals as were the students of ten to fifteen years ago.

For the purposes of this study, data pertaining to demographic background, personality characteristics, self-concept, and educational-vocational goals and values was gathered on 131 freshmen students enrolled at Montana State University during Winter Quarter, 1974. These students were to be classified as either role motivated or goal motivated based upon (1) curriculum choice or lack of curriculum choice, (2) university academic performance, (3) development of vocational plans, and (4) composite role-goal motivation profile.

A student was classified as role motivated if he was in General Studies and indicated that he was having difficulty in making up his mind about what field to major in, if his cumulative grade point average

was below the mean for the study population, and he was undecided as to vocational choice and lacked even tentative post-college plans.

A student was classified as goal motivated if he indicated a specific curriculum choice, his grade point average was above the mean for the study population, and he had definite post-college plans and indicated a vocational choice.

Once the students were classified, they were examined to determine if there were any differences relating to personality characteristics, self-concept, educational-vocational goals and values, high school attended, academic aptitude, major field of study, high school academic performance, and sex.

Personality characteristics and self-concept were measured by the California Psychological Inventory. Educational-vocational goals and values were assessed by the Survey of Student Interests and Values. Demographic data collected from Montana State University records included high school attended, academic aptitude, major field of study, high school academic performance, and sex.

Hypotheses were grouped into three categories: (1) personality characteristics and self-concept; (2) educational-vocational goals and values; and (3) demographic data. All hypotheses were tested at the .05 level of significance.

CONCLUSIONS

The following conclusions were developed upon an analysis of the data in this study.

1. In looking at personality characteristics and self-concept as measured by the California Psychological Inventory, it was found that the goal motivated students tended to be more outgoing, sociable, and dominant. Their levels of self-esteem and self-concept were higher than those of the role motivated students.

2. As measured by the CPI, the goal motivated students tended to be more concerned with doing the "accepted thing" and creating a good impression. The role motivated students tended to be more flexible and less rigid in nature than were the goal motivated students.

3. As measured by the Survey of Student Interests and Values, it was found that students who selected a specific major field of study were more satisfied with their choice than those who had not made a specific choice.

4. As measured by the Survey, the role motivated students exhibited tendencies to be undecided as to future vocational plans and were more concerned with learning for the sake of learning, and in developing a meaningful philosophy of life.

5. As measured by the Survey, the goal motivated students tended to view college as training for an occupation, had developed specific future vocational plans, and were more interested in vocational

opportunities in the field than were the role motivated students.

6. The results from the demographic data did show that the students in the study were consistent academically. In general, the students who performed well academically in the past performed well academically at the university.

7. It was found that students with high levels of academic ability, as measured by university entrance examinations, tended to perform well academically at the university.

8. When selecting a curriculum, it was found that goal motivated students preferred agriculture, commerce, education, engineering, home economics, nursing, and sociology. No major field of study, other than General Studies, was predominantly preferred by role motivated students.

RECOMMENDATIONS

Based upon the findings and conclusions of this study, several recommendations emerge as appropriate for further investigation.

1. This investigation, as it relates to the process of curriculum choice and direction of motivation, role or goal, should be replicated on other college and university campuses. It is important to know whether the findings at Montana State University can be applied to a larger segment of the national student body.

2. This investigation should be conducted on a longitudinal or

long term basis. This type of study with one population over a period of years would help to determine the relationship between direction of motivation, role or goal, and curriculum and vocational development.

3. This investigation should be replicated using samples of students other than freshmen. This type of analysis would help to determine the relationship between the amount of time spent on campus and the direction of motivation, role or goal.

4. Research concerned with personality and vocational development of college students should be continued. If the students have changed over the last twenty-five years, as suggested by several authors, it would be important to know the impact of this change upon vocational development.

5. There should be continued research regarding values, goals, expectations, and attitudes of college students and the impact that these factors may have upon curriculum choice and vocational development.

6. It is recommended that faculty advisors be aware of the direction of motivation of his students, role or goal, and that he act in accordance with these varying needs. The role motivated student may have needs which differ from those of the goal motivated students.

7. It is recommended that definitions of role and goal, other than the functional definitions used in this study, be developed and applied when examining student commitment to curricula and vocations.

APPENDICES

APPENDIX A

—Montana State University—

Bozeman, Montana 59715

Tel. 406-994-4933

Department of Educational Services

February 20, 1974

Dear

I am conducting a research study relating to the process of curriculum and vocational development among college students on campus at Montana State University. It is hoped that the research results will provide data which will enable the faculty and staff on campus to better understand and work with college students.

You are one of the 300 students who has been selected for participation in this study. In order for this investigation to be valid, it is very important that each of the students selected participates.

Confidentiality of each participant is insured. Test scores and grade point averages from University records will be used in the study in addition to the data collected by questionnaire.

Two questionnaires will be administered: (1) the California Psychological Inventory and (2) the Survey of Student Interests and Values. The time required to complete these questionnaires is approximately one hour and fifteen minutes.

I have arranged to administer these questionnaires on the evenings of Tuesday, February 26, and Wednesday, February 27, at 7:00 PM, in Room 105, Reid Hall. You may attend one or the other administration at your convenience.

If you have any questions or concerns relating to the study, you may contact me on campus in the Office of General Studies, Ext. 3544, or evenings at 587-2350.

I look forward to your participation and thank you in advance.

Sincerely,

Gardy Van Soest, Doctoral Candidate in Student Personnel Services

APPENDIX B

SURVEY OF STUDENT INTERESTS AND VALUES

This survey is to be used for research purposes only. All information will be held in strict confidence.

Directions: On the separate answer sheet, print your name in the space provided and list your Social Security number in the space provided for "school." On the front of your answer sheet, items 1 through 4, mark the last four digits of your Social Security number. On the back side of your answer sheet, items 97 through 100, mark the last four digits of your Social Security number. If your number has a "0" on it, mark space number 10. On items 5 through 24, mark only one response on your answer sheet which corresponds to the number of your answer. On responses 25 through 74, mark number 1 on your answer sheet if that response pertains to your particular situation.

1 - 4 Last four digits of your Social Security number.

5. Sex

1. Male
2. Female

6. Class in school

1. Freshman
2. Sophomore
3. Junior
4. Senior
5. Other

7. Indicate your major field of study

1. Agriculture
2. Architecture or Art
3. Biological Sciences
4. Commerce (Business)
5. Education
6. Engineering
7. English, Film and TV, Languages, Speech, Theatre
8. General Studies
9. Home Economics
10. Math
11. Music
12. Nursing

13. Physical Sciences
 14. Pre-Med, Pre-Vet
 15. Social Sciences
8. The most important reason for going to college for me is:
 1. Preparation for an occupation
 2. Pursuit of knowledge
 3. Social life, establish friendships
 4. Pressure from relatives or friends
 5. Search for meaning in life and personal identity
 9. Indicate degree of satisfaction with your present curriculum
 1. Very satisfactory
 2. Acceptable
 3. Somewhat dissatisfied
 4. Very dissatisfied
 10. If you are dissatisfied with your choice of curriculum, indicate which item applies to your situation.
 1. I would be more interested in the subject matter of another field.
 2. Another field would provide better training for the occupation I plan to enter.
 3. Chance of employment better in another field.
 4. Other.
 11. How much difficulty did you have or are you having in making up your mind about what to major in?
 1. Considerable
 2. Some
 3. Little
 4. None
 12. Grades are usually an important reason for satisfaction or dissatisfaction with the kind of work one is doing in college. Indicate below how you feel about the grades you have received.
 1. I think my grades approximately match my abilities, because I make an average of effort and have had reasonably good luck.
 2. I think my grades are lower than my abilities because of illness, family difficulties, or other unfavorable outside influences.
 3. I think my grades are lower than my abilities because I have been less interested in working for grades than most students.
 4. I think my grades are higher than my abilities because of good luck with teachers, special help, or other favorable influences.
 5. I think my grades are higher than my abilities because I have made an unusually strenuous effort to obtain good grades.

13. What is the highest academic degree that you intend to obtain?
1. None
 2. Associate (A.A. or equivalent)
 3. Bachelor's Degree (B.A., B.S., etc.)
 4. Master's Degree (M.A., M.S., etc.)
 5. Ph.D. or Ed.D.
 6. M.D., D.O., D.D.S., or D.V.M.
 7. LL.B. or J.D. (Law)
 8. B.D. or M.D. (Divinity)
 9. Other
14. Do you expect to continue your education in a graduate or a professional school?
1. Definitely yes
 2. Probably yes
 3. Probably not
 4. Definitely not
 5. Haven't thought enough about this matter to say
15. Have you decided, even tentatively, what occupation or vocation you want to go into after college?
1. Yes
 2. No, not even tentatively
16. In thinking about your occupational future, do you feel that in the long run you will have a preference for:
1. An academic life (teaching, research, other scholarly work)
 2. A business life
 3. A professional life (doctor, lawyer, engineer, etc.)
 4. A life of a trained technician or craftsman
 5. A life centering around some aspect of the creative arts
 6. A life centering around a home and a family
 7. Other
 8. I have not given sufficient thought to this matter to say
17. Below are four descriptive statements of "personal philosophies" of higher education. Indicate the one which is the best description of your point of view.
1. This philosophy emphasizes education essentially as preparation for an occupational future.
 2. This philosophy, while it does not ignore career preparation, assigns greatest importance to scholarly pursuit of knowledge and understanding wherever the pursuit may lead.
 3. This philosophy holds that besides occupational training and/or scholarly endeavor, an important part of college life exists outside the classroom, laboratory and library. Extracurricular

activities, social life, etc. are important elements in one's college experience.

4. This philosophy emphasizes individualistic interests and styles, concern for personal identity and, often contempt for many aspects of organized society. There is little or no interest in business or professional careers or extracurricular activities or tradition.
18. When did you first know what you wanted to do as your life's work?
 1. Since you were a small child
 2. By the time you were in elementary school
 3. By the time you were through high school
 4. Still not sure
19. Indicate your probable vocational field
 1. Undecided
 2. Skilled trade or craftsman
 3. Clerical or secretarial work
 4. Business (Manager, executive, sales)
 5. Medical service (doctor, dentist, nurse, veterinarian, etc.)
 6. Law
 7. Ministry, priesthood, or other religious work
 8. Research work, all sciences, within or without of a university
 9. College teaching, administration
 10. Elementary or high school teaching, guidance, administration
 11. Fine Arts (painting, music, theater, etc.)
 12. Social work
 13. Agriculture, forestry, conservation, etc.
 14. Homemaking
 15. Other
20. Regarding responsibility in your ideal job, you would:
 1. Like to have a good deal of responsibility
 2. Like to have some responsibility, but still have someone responsible over you
 3. Prefer a minimum of responsibility
 4. Rather not have any responsibility
21. What do you think is the most important thing a person should get out of college?
 1. Training for a profession
 2. General cultural knowledge
 3. Personal maturity
 4. Social polish

22. Concerning your present and future activities, do you:
 1. Make rather precise and detailed plans
 2. Make broad and general plans, but not detailed ones
 3. Make few plans, let "nature take its course"
23. About how often did you change your mind about future vocational plans since the time you entered high school?
 1. Have not changed them
 2. Only once
 3. Two or three times
 4. Too many to remember
 5. Have still not decided
24. Which one of the following has played the most important part in your career decision?
 1. No career decision made yet
 2. Interest in the area
 3. Influence of parents
 4. Influence of other relative
 5. Opportunities in the field
 6. Influence of teachers or counselor
 7. Social advantages of the occupation
 8. Hobby

Directions: Below are four statements which may have more than one answer. On answers 25 through 74, mark number 1 on your answer sheet if that response pertains to your particular situation.

Below are some of the reasons that might have influenced your decision to attend this particular college. Indicate the most important reasons for you.

25. Parents wanted me to come here.
26. I wanted to live away from home.
27. A teacher advised me.
28. This college has a good academic reputation.
29. I was offered financial assistance.
30. Someone who had been here before advised me to go.
31. Because of special educational programs offered.
32. Because of low tuition.
33. My guidance counselor advised me to go.
34. I wanted to live at home.
35. I could not get a job.
36. This college has a good athletic program.

Below are several personal objectives. Indicate those which you feel to be essential or very important.

37. Achieve in a performing art
38. Be an authority in my field
39. Influence political structure
40. Influence social values
41. Raise a family
42. Have administrative responsibility
43. Be very well-off financially
44. Help others in difficulty
45. Be successful in my own business
46. Be involved in environmental cleanup
47. Develop a meaningful philosophy of life
48. Become a community leader
49. Keep up with political affairs

In which of the following areas do you hope to receive your greatest personal satisfaction at this college during the present year:

50. Course work in general
51. Individual study or research
52. Getting acquainted with faculty members
53. Student government
54. Athletics
55. "Bull-sessions" with fellow students
56. Parties and social life
57. Dating
58. Close friendships with students
59. Getting acquainted with a wide variety of students
60. The life of the dorms or houses
61. Individual artistic or literary work
62. Self-discovery, self-insight (discovery of new interest, talents, etc.)

Indicate the reasons you feel which are very important in selecting a life career:

63. Job openings available
64. Rapid advancement
65. High anticipated earnings
66. Respected occupation
67. Independence
68. Chance for steady progress
69. Contribution to society
70. Avoid pressure

- 71. Work with ideas
- 72. Be helpful to others
- 73. Work with people
- 74. Intrinsic interest in field

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