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THE RELATIONSHIP OF OCCUPATIONAL CHOICE TO EGO
IDENTITY AND SELF-CONCEPTS

by

Norman Darrel Bell

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

of

DOCTOR OF EDUCATION

in

Educational Psychology

Approved:

UTAH STATE UNIVERSITY
Logan, Utah

1968

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Norman D. Bell
Norman Darrel Bell

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ABSTRACT

The Relationship of Occupational Choice to Ego
Identity and Self-Concepts

by

Norman D. Bell, Doctor of Education

Utah State University, 1968

Major Professor: Dr. John R. Cragun

Department: Psychology

This study attempted to investigate the relationship of occupational choice to ego identity achievement, to self-concept, and to academic achievement, as these are related to Eric Erikson's contention that it is adolescents' inability to settle on an occupational choice which disturbs them and results in a sense of identity diffusion (lack of solidified ideas of self, goals for life, and a need to seek external supports).

The sample consisted of 320 senior high school boys in the tenth, eleventh, and twelfth grades.

Variables considered included: level of vocational commitment; ego identity; self-regard, i.e., self-concept, self-acceptance, ideal self and adjustment (sum of discrepancies between self and ideal self); and academic achievement, i.e., achievers or underachievers.

The variables were treated by means of analysis of covariance, controlling for intelligence, Duncan range test, chi-square analysis, and Pearson product-moment correlations.

Results of the analysis of data revealed that significant differences existed between adolescents who had expressed vocational commitments and adolescents who were vocationally undecided on (a) ego identity achievement, and (b) self-concept.

In considering characteristics of those making or not making a vocational choice, it was found that level of vocational commitment of senior high school boys tends to be dependent on length of time the choice is considered, the amount of feedback and discussion with parents concerning the choice, father's occupation, and the influence of significant others. Another finding was that the verbalized vocational choice of adolescents is consistent with their measured interests. Ego identity was found to be nonsignificantly correlated with achievement and intelligence. Ego identity, self-concept, and self-acceptance have positive and significant intercorrelations (.01 level). It was concluded that adolescents who have not made a vocational commitment, demonstrate a greater degree of identity diffusion--lower ego identity achievement and lower self-concept--than adolescents who have expressed a vocational commitment. It was felt that the data supported Erikson's formulations concerning the period of adolescence to the extent that a positive and predictive relationship was found between level of occupational commitment and ego identity achievement, and between the level of occupational commitment

and self-concept.

It was felt that ego identity was not significantly related to intelligence or achievement. It was further concluded that ego identity, self-concept, and self-acceptance are related measures dealing with level of maturity and ego integration in adolescence.

(122 pages)

INTRODUCTION

E. H. Erikson's (1956; 1959; 1963) theory of personality development is a social system of personality which attempts to develop ego, cultural, and inter-personal conceptions within the basic framework of the Freudian psychosexual theory. Important factors of this system are three personality processes, the somatic, the ego, and the societal. The somatic consists of those processes inherent in the organism--physiological functions. Ego processes are the organization of experience in the individual's mind, his thinking, feeling and personality transformations. The societal is society, the development of roles, the influences of community, family, and class--organized into groupings of geographic and historical coherence. In the history of science, these three processes have belonged to three different scientific disciplines--biology, psychology, and the social sciences. Erikson contends that in order to understand a human event, these three factors must be grasped in perspective.

Erikson sets forth a maturational scheme that recognizes the Freudian psychosexual stages of adjustment; but by means of his conceptions of zones, modes, and modalities, and his eight stages of man's personality development, he has expanded and socialized the concepts proposed by Freud.

In using the Freudian psychosexual development timetable he directs his attention to three major zones of psychosexual activity--oral, anal, and genital. Under these he defines five modes of approach to the environment or basic vectors by which the individual becomes involved with people, which can be expressed in terms of any one of the three organ zones. These modes are incorporative I, incorporative II, retentive, eliminative, and intrusive. The social modalities learned in life corresponding to each of the modes would be receiving, taking, holding on, letting go, and making. Through the use of a matrix of the combination of zones and modes, one is provided with a way of classifying the fixations, regressions, and sequences of normal development.

Erikson's eight stages of human emotional growth are a "list of ego qualities--criteria by which the individual demonstrates that his ego, at a given stage of the life cycle, is strong enough to integrate the timetable of the organism with the structure of social institutions" (Erikson, 1963, p.246).

For Erikson, personality development occurs in eight successive stages which are the product of physiological growth, or more highly differentiated individual capacities, and an expanding interpersonal or social radius. Each step in the expansion of the social radius makes increasing demands upon the individual and contributes to his subsequent psycho-

social effectiveness. As the individual first enters and begins to cope with each of the successive psychosocial stages, his ego becomes more vulnerable because of the challenges and resultant conflicts engendered by dealing with new demands which are made upon him. The radical changes in perspective necessary for coping with each successive step, coupled with the new challenges and conflicts of the period, represent a psychosocial crisis. The healthy adult personality is predicated upon the successful resolution of eight specific crises: (a) Infancy (Trust vs. Mistrust); (b) Early Childhood (Autonomy vs. Shame and Doubt); (c) Play Age (Initiative vs. Guilt); (d) School Age (Industry vs. Inferiority); (e) Adolescence (Identity vs. Identity Diffusion); (f) Early Adulthood (Intimacy vs. Isolation); (g) Adulthood (Generativity vs. Stagnation); (h) Mature Age (Integrity vs. Despair and Disgust).

For each crisis period, Erikson has set forth a criterion of relative psychosocial health and a corresponding criterion of relative ill-health. He relates the psychosocial crises of earlier life to subsequent derivatives which are deduced from the criterion of relative health or ill-health for each of the periods. These derivatives, in the form of attitudes or behavior response sets of the individual, become integrated to make up the adult personality.

The present investigation is concerned with Erikson's (1963) contention that it is the adolescents' inability to settle on an occupational choice which disturbs them and results in a sense of identity diffusion. Role diffusion is normally characteristic of early adolescence, when the youth has not yet found himself (not yet achieved identity); when he is both dependent and independent, loyal and defiant, daring and timid. He must master these divergent trends, give up being a carbon copy of other people, and become himself.

Adolescence, which is the focus of the fifth crisis, is seen as a highly crucial period in psychosocial development. The criterion of psychosocial health which accompanies satisfactory solution of the adolescents crisis is the development of a sound ego identity; the criterion of ill-health for this period is ego diffusion. Positive resolution of the ego identity crisis is considered necessary for the individual to make a satisfactory adjustment as an adult in his society. Ego identity as viewed by Erikson seems to mean a Gestalt-like integration of the ego and the self. He views this phase of the life cycle as a time of growing occupational and ideological commitment. Facing such imminent adult tasks as getting a job and becoming a citizen, the individual is required to synthesize childhood identification in such a way that he can both establish a reciprocal relationship with his society and maintain a feeling of continuity

within himself.

Erikson's concept of "ego identity" is still evolving. A core meaning of the concept, however, is perhaps to be found in Erikson's statement that, "the sense of ego identity is the (individual's) occurred confidence that (his) inner sameness and continuity are matched by the sameness and continuity of his meaning for others ..." (1963, p. 261).

In this definition, three elements are present. First, an individual must perceive himself as having "inner sameness and continuity," i.e., he must, over time, presume himself to be essentially the same person he has been. Second, the surrounding persons in one's social milieu must perceive a "sameness and continuity" in the individual also. And finally, the individual must have "occurred confidence" in a correspondence between the two lines of continuity, internal and external. His perceptions of the person he sees himself as being must be validated by feedback from his interpersonal experiences.

Erikson states that acute identity diffusion usually becomes manifested when the individual is exposed to a combination of physical intimacy, competition, definitive occupational choice, and self-definition. An environmental situation in which all these psychosocial stresses are provided is the school situation. Particularly is this true in the last few years of high school, where the pressure is on the individual to either prepare himself to

enter directly into the work-a-day world and stand alone or to go on to college in some area of specialization.

In our society one of the most clear-cut avenues through which identity concerns are expressed is the process of making a vocational choice. The vocational choice is often the first important decision with which one is faced that will have marked effects on later experience. Earlier choices, such as what school to go to, even what to major in do not have the same finality as that of the vocational choice. Super (1951) noted that the process of choosing an occupation involves checking the compatibility of occupation and self-concept. When one's idea of self is shaky, unsolidified, distorted, or has many warded-off unconscious elements, such comparing is particularly difficult.

Choosing a vocation involves a kind of public self-definition that forces one to say to the world, "This is what I am." It is precisely the lack of internal withdrawal to make such a declaration that immobilizes some people when they are faced with having to choose. Although they may wish to avoid declaring themselves, adolescents are always painfully aware of the demand that some decision be made. The incompatibility between the internal inability and external (as well as internal) demand creates a great deal of additional discomfort.

The Problem

Despite the increasing frequency with which Erikson's work is mentioned in current textbooks on general psychology, child development, and counseling and psychotherapy (e.g., Brammer & Shostrom, 1960; Hilgard, 1962; Mussen, Conger, & Kagan, 1963) little systematic research on his theoretical formulations has been published.

The research that has been published, however, gives some direction in which investigation might continue. Both Bronson (1959) and Gruen (1960) have given some clear-cut experimental support to the ego-identity-diffusion continuum of Erikson's theory. Bronson did an empirical investigation of some of the characteristics of identity diffusion in late adolescence, and Gruen an empirical investigation of ego identity and evaluation of self. Block (1961) and Rasmussen (1964) give some understanding to the relationship of ego identity and adjustment. Block was concerned with ego identity, role variability, and adjustment; and Rasmussen investigated the relationship of ego identity and psychosocial effectiveness. The correlates of male ego identity were investigated by Hunter (1962); and Marcia (1966) investigated the construct validity of ego identity status.

These studies (Block, 1960; Bronson, 1959; Gruen, 1960; Hunter, 1962; Marcia, 1966; Rasmussen, 1964), have investigated explicitly or implicitly characteristics and

behavior which should follow if identity has been achieved or the degree of identity achieved; those showing evidence of ego identity demonstrate a greater degree of self-acceptance than those manifesting ego-diffusion, better overall adjustment, less confusion in self-definition, and more freedom from anxiety. None of these studies have been concerned with what Erikson formulates takes place while the adolescent struggles to achieve his identity, i.e., "It is the inability to settle on an occupational identity which disturbs young people" (1963, p. 262). One way of gaining better understanding into what takes place may be to consider the relationship of occupational choice to ego identity, to self-concept, and to academic achievement.

A preliminary study (1965) was conducted by the author investigating the relationship of adolescents with low or lacking firm vocational interests to identity diffusion with their peer groups as measured by ratings on a semantic differential. The Ss rated three concepts, Real Self, Most Popular Boy in my Group, and Boys who are Class Leaders. Using t-tests, the mean difference of each of the last two concepts minus the concept real self was compared for the high and low groups, which have been established on the degree of interest maturity (firmness of vocational goals) as measured by the Interest Maturity Scale of the Strong Vocational Interest Blank. The results indicated that Ss who had not firmly settled on a vocational goal (low interest

maturity) either had just as much discrepancy between their ratings of themselves and others, or they had a much greater discrepancy between their ratings of self and others and considered themselves less similar to their peers than did Ss who were firmly settled on a vocational goal (high interest maturity). This was contrary to what had been predicted.

These results were perhaps just artifacts of the experimental situation or the small and perhaps selected sample (42 high school senior boys in psychology and sociology at a large high school) which very likely was a biased sampling of adolescents in general. Also it may be an unjustified assumption that firmness or commitment to a vocational choice can be inferred from interest maturity.

Thus the following study was proposed to investigate the relationship of having made a definite vocational choice to the achievement of ego identity; the relationship of a definite occupational choice to one's self concept; and the relationship of a definite occupational choice to academic achievement, using hopefully more definitive measures and a much larger sampling of the adolescent population.

Objectives and Hypotheses

It was the aim of this study to investigate some relationships which are involved or implied in Erikson's contention that the adolescents' inability to make firm vocational choice causes them to temporarily overidentify with peer group heroes

(ego diffusion, lack of solidified ideas of self and goals for life and a need to seek external supports). On the basis of his conception of ego identity as it has been presented, it is hypothesized that:

1. Adolescents who have not settled on a vocational choice (as assessed by the Vocational Choice Questionnaire) will have lower ego identity (as measured by the Ego Identity Scale) than adolescents who have settled on a vocational choice.

a. Those with a stated Definite vocational choice will have higher ego identity than those judged as either Tentative or Undecided.

b. Those judged with a Tentative choice will have a higher ego identity than those judged Undecided.

2. Adolescents who indicate they have a definite vocational choice (as assessed by the Vocational Choice Questionnaire) will demonstrate a higher self-concept and have a more positive adjustment (as measured by the Index of Adjustment and Values) than adolescents without a definite vocational choice.

a. Those judged as having made a Definite vocational choice will have a higher self-concept and have more positive adjustment than those judged as either Tentative or Undecided.

b. Those judged as having made a Tentative vocational choice will have a higher self-concept and have a more positive adjustment than those judged as Undecided.

3. Adolescents who have a definite vocational choice will be rated as achievers as opposed to ratings as under-achievers for those adolescents without a definite vocational choice.

REVIEW OF LITERATURE

The formation of a stable and enduring ego identity is the goal of late adolescence. The individual attempts to arrive at a synthesis or integration of his early sex and social roles and the new sex, social and occupational roles of adolescence. Once achieved a person's identity is manifested in his ability to make a vocational choice involving long term commitment and in his ability to reconcile his expectations for himself with others' expectations for him.

In a perusal of the literature, previous studies have attempted to determine the extent of ego identity achievement by means of an adjustment measure and the semantic differential technique (Bronson, 1959), a Q-sort measure of real-ideal-self discrepancy (Gruen, 1960), a measure of role variability based on adjective ranking (Block, 1961), a questionnaire (Rasmussen, 1963), and a semi-structured interview and an incomplete-sentences blank (Marcia, 1966).

Previous studies have found ego identity to be related to "certainty of self-conception" and "temporal stability of self-rating" (Bronson, 1959), extent of a subject's acceptance of a false personality sketch of himself (Gruen, 1960), anxiety (Block, 1961), and sociometric ratings of adjustment (Rasmussen, 1964).

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. Galinsky and Fast (1966) attempt to describe some of the characteristics of identity problems which take the form of vocational indecisions, for example, the choice of an occupation that holds no promise of being gratifying. Some people consciously or unconsciously think of choosing a particular occupation in the hope of assuming characteristics that seem to inhere in members of that occupation; self doubts and feelings of unworthiness make vocational decisions extremely difficult. When no firm identity has been achieved, one is constantly beseiged by questions about who he is and what he can do.

Vocational Choice And Its Assessment

Current vocational choice theory has as its general framework the supposition that the choosing of an occupation should be viewed within the context of the general personality development of the individual as he comes to view himself and the world around him (Holland, 1963; Siegelman & Peck, 1960; Super, 1953). More particularly, it postulates that the choosing of a certain set of social roles, such as that involved in vocational choice, and the rejecting of others is dependent on the characteristics which are attributed to oneself, on either a conscious or unconscious level, and the characteristics which are

attributed to performance in the various social roles. The choice is then made on the basis of the extent to which an individual "sees himself in the role" or the role as befitting himself.

Paterson (1962), among others, has said, both the level and direction of vocational aspirations may, to a great extent, be determined by the homes and assumptions of parents, wives, and friends, with these perceptions and motives of others frequently at variance with those of the individual making the vocational choice.

Karman (1966; 1967) investigated self-esteem operating as a moderator on the vocational choice process and found that individuals high in self-esteem sought those vocational roles which would be congruent with their self-perceived characteristics, whereas this was not the case for those individuals low in self-esteem. Karman's investigation was tied to two major theoretical assumptions: (a) All other things being equal, individuals will engage in those behavioral roles which will maximize their sense of cognitive balance or consistency. (b) An individual's self-esteem or general evaluation of himself is part of his cognitive structure (self-esteem being defined as a person's characteristic evaluation of himself as an individual; low self-esteem is characterized by a sense of personal inadequacy and an inability to achieve needed satisfaction in the past; high esteem is defined by a sense of personal adequacy and a

sense of having achieved needed satisfaction in the past).

In comparing young men who had made their occupational choices with those who had not made a choice, Marr (1965) found that those who had made a choice were more 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 had made a choice, it was found that the early deciders were more self-directing and more desirous of continuing in their occupation. Definitely nonself-directing subjects and those who were ambivalent or lukewarm about their occupations had lower self-regard scores than the others. Finally, self-direction in choice and time of decision were not related to acceptance of father, nor parent's occupational levels.

It is often assumed that problems of adjustment are inevitably present for persons involved in important steps of their life career: adolescence, marriage, the choice of an occupation, and so on. Because our society is so heterogeneous and lacking in specific rules directing behavior at these crisis points, the individual is said to be found with conflicting expectations. Choice between these expectations is viewed as problematic and productive of problems of adjustment.

An analysis (Carper & Becker, 1957) indicates that conflict does not necessarily occur in assuming an occupational

identity. When conflict does occur, it centers around disparities between parental and occupational expectations. Carper and Becker found the following elements were importantly involved in the process: the specificity of family desires and the power of the family to make these felt, the character of the commitment and the time at which it is required by particular occupations, the nature of the occupational ideology and the kinds of social support for it, and the timing of appearance of incompatibilities between family and occupational expectations. It is the relationship among these that determines whether or not conflict and the necessity of adjustment will occur.

Much of the work in the area of vocational interest assessment has been done by Strong (1943). Strong pointed out two major considerations in interest testing: the first concerns the differentiation of groups from one another; the second involves the assignment of individuals to membership in one or more groups on the basis of their interest scores. As a result of this reasoning there are two measures of the validity on an interest test: (a) How well the test differentiates occupations (or other groups); (b) How well individuals are assigned to occupations (or other groups) in which they succeed at least passably and at the same time find the work interesting. It appears in looking over the literature that the terms interest and occupational choice sometimes are used interchangeably.

For it is our major thesis now that occupational choice and measured occupational interests reflect... the value system, the needs, and the motivations of individuals. These choices or measured interests are in effect, the end-product of individual development and the bridge by which a particular individual pattern of development crosses over to its major social role in our culture. (Darely & Hagenah, 1955, p. 191)

There are many tests of vocational interests but according to Bordin (1954; 1959), for most purposes in testing vocational interest, the Kuder Preference Record and the Strong Vocational Interest Blank are the most frequently considered choices. Where the Strong approaches the measurement problem by developing scales representing the constellation of preferences, Kuder purports to isolate the important independent dimensions of vocational interest. The Kuder falls short of the Strong in the thoroughness of its validation and other supporting data. Neither measures how much interest is possessed but rather what interests agree with those of the average successful man in a given occupation.

Super in a conference report on the Strong Vocational Interest Blank (Layton, 1955) concluded that other indices of maturity are related to the Interest Maturity Scale of the Strong Vocational Interest Blank, but that this scale particularly reflects the maturity of vocational orientation and behavior of the adolescent boy.

Super and Overstreet (1960) suggest that in adolescence the expectation is that an individual's vocational preferences are more specific, agree better with reality, and reflect

greater independence from the influence of other at the end of the high school years than at the beginning. While the issue of stability of occupational or vocational choice at this age range, 16-19 (senior high school), is not entirely resolved there is considerable evidence supporting it (Hartson, 1937; Porter, 1954; Hoppock, 1957; Super, 1957).

There have also been other studies using questionnaires and Q-sorts to evaluate the commitment to, realism of, or practicality of vocational goals. For example, Todd, Terrel, and Frank (1962) used a specially devised questionnaire to assess the vocational goals of achievers and nonachievers and concluded that achievers have more definite vocational goals than nonachievers.

Morrison (1962) using a Q-sort found that nurses showed greater agreement between the Q-sort for self and for the characteristics of a nurse than for their sort of self and the characteristics of a teacher. Teacher trainees showed the reverse. The degree of concordance was related to stated commitment to the occupation.

For many years textbook writers, vocational counselors, and educational researchers have deprecated a person's self-expressed or "claimed" vocational choice. Their reservations apparently arose because the relationships between expressed and measured interests are too low to substitute one for the other, also, over a period of time, only a small percentage of people express identical vocational preferences.

This orientation encouraged a long series of valuable studies on the reliability and predictive validity of interest inventories. At the same time, it discouraged all but a few investigations of the predictive validity of self-expressed vocational choice.

Holland (1963) and Holland and Lutz (1967; 1968) examined the predictive validity of a student's choice of vocation, and compared the predictive validity of this self-expression with his scores on a vocational preference inventory (Holland, 1967). The results demonstrate the high validity of self-expression and the low validity of the Vocational Preference Inventory. Expressed vocational choice was clearly and substantially superior.

There was indication that the Strong Vocational Interest Blank was not as effective as expressed choice for a similar sample over a four year interval (Holland, 1963).

The essence of these studies seems to be that expressed vocational choice should be used more often and the use of interest inventories might not always be the best approach.

Characteristics Of Achievers And Nonachievers

The need for achievement has been postulated by Murray (1938), Edwards (1954), McClelland (1953), and Rotter (1954) as an important motivating factor in behavior. Moreover, the studies of Gebhart and Hoyt (1958) and Merrill and Murphy (1959) report differences in this need as measured by the

Edward's Personal Preference Schedule for groups differing in achievement indices based on academic performance. There is implicit identification of achievement with academic achievement in these studies. McClelland hypothesized that a higher level of scholastic performance is expected of girls than of boys at all levels of development. This has some support in the general findings that underachievement is more frequently found in males than females. Shaw and McCuen (1960) found that underachievement (performing below expected level of performance) is present in some males when they enter elementary school, while it apparently does not begin with females until the junior high school years.

There have been a number of studies investigating the relationship of underachievement to various aspects of the self-concept. Stevens (1956) explored the relationship between college students' academic achievement (measured by grades) and certain concepts that they hold about themselves which were reflected in their self-attitudes. It seems that achievers are more accepting of self than under-achievers, have more self-insight into their intellectual abilities and conceive their achievement related personality characteristics as more salient. Ckicking (1958) lends support and further understanding in his study of academic achievement and two aspects of self, the actual self-concept and the ideal self-concept. An inverse relationship was found to exist between academic achievement and the

discrepancy between the actual and ideal self-concept. Also of interest was the finding that ideal self-perceptions of under- and overachievers are more similar than their actual self-perceptions.

Studies with adolescents have likewise been undertaken. Two studies (Shaw, Edson, & Bell, 1960; Shaw & Alves, 1963) give strong evidence of a direct association between negative self-attitudes and academic underachievement, the ability levels being equal. It was noted that male underachievers reported themselves as being less self-accepting and attributed a similar lack of self-acceptance to their peers. Similar results were obtained by Peppin (1962) when he found that overachievers rated themselves more favorably than they rated their peers, while the reverse was true for under-achievers. Thus it would seem that underachievers perhaps see their peers in a more favorable light than they see themselves.

Fink (1962) found that adequate self-concept is related to high academic achievement and that inadequate self-concept is related to underachievement. Even group comparisons yield evidence that achievement is characterized by high self-evaluation (Borislow, 1962). There is some evidence to support the idea that males in general have a more consistent self-picture than females and that the school situation is an integral part of their total self-concept. Grade point averages and underachievement seem to be positively related

to aspects of self-concept (Bruck & Bodwin, 1962; 1963).

Combs (1962) claims that a person with an adequate self-concept will meet life expecting to be successful; therefore, he will behave in a manner which will bring about success. Also, he claims that a person with an inadequate self-concept will feel unable and will feel that he cannot succeed; therefore, he will behave in a manner which will not lead to success.

Walsh (1956) compared self-concepts of high- and low-achieving boys, matched for superior IQ. The 20 bright, academic underachievers showed more "inadequate and crippling" self-concepts than did the 20 matched bright normal achievers. The measure of self-concept used was the Driscoll Play Kit. Each S made up ten stories from incomplete stems and these were judged globally on a five-point scale. Each subject's self-concept was inferred from the behavior and attitudes he attributed to the boy doll. Barrett (1957) found similar results in a study of gifted children; underachievers tend to lack a "feeling of worth as an individual". And likewise, Quimbly (1967) found similar discrepancies between achievers and underachievers and various aspects of the self-ideal self relationship.

Two studies (Krippner, 1961; Todd, Terrel, & Frank, 1962) found that male achievers generally have decided on definite vocational goals and that underachievers tend to be vocationally undecided. Todd et al. also found that underachievers when compared with normal achievers manifested less need for

academic achievement, were less likely to perceive a relationship between course-work and attainment of vocational goals, and had lower expectancy for success in academic pursuits. Likewise, Wilson and Morrow (1962) in investigating school and career adjustment of bright high achieving and under-achieving high school boys found that the two groups indicated general concern for status, but that high achievers expressed higher career goals and anticipated greater future income.

Burgess (1956) found a number of significant personality factors in over- and underachievers in engineering. It was noted that overachievers tend to be constricted, more inhibited in emotional responses to pleasurable aspects of the environment, show greater intellectual adaptivity, and the need for achievement and improvement of the self or status is greater. Expectations that they would show evidence of more maturity of occupational interests as measured by Strong's (1943) Interest Maturity Scale was not confirmed although the results did lie in the anticipated direction. Underachievers were found to be less intellectually adaptive, to over-generalize and over-extend the self, to show less intellectual control and repression of emotional reactivity and to be more dependent in their attitude towards others.

Dauids (1966) found that high achieving boys and girls (potential scientists, ages 14.5-16.5 years) tend to have psychological characteristics that differentiate them from low achievers. They have a higher need for achievement,

dominance, endurance, order, and intraception. In addition, they score higher on measures of self-assurance, socialization, maturity, achievement potential, and intellectual efficiency. Academic underachievers showed a greater need for heterosexual activity and succurance.

Chopra (1967), in a comparative study of matched achieving and underachieving students of high intellectual ability, found that the fathers of achievers had comparatively higher levels of education, better lodgings, smaller families, and a more stimulating cultural atmosphere in their homes. She also found that a larger proportion of the achievers expected to continue their studies, had some plans for a future occupation, and had higher occupational expectations.

Research (Shaw & Brown, 1957; Berger & Sutker, 1956; Burgess, 1956; Hoyt & Norman, 1954) in the area of achievement, however, has failed to show any difference in overall adjustment among over- and under- and moderate-achieving students.

Most perplexing, and vexing or all has been the inability to relate actual achievement to measures of motivation to achieve. Motives have both force and direction. Shaw (1961, p. 284) points out that present measures of need achievement consider only the former while neglecting the latter. If one is willing to define motivation as the amount of energy expended, then the concept embodied in the

idea of "need to achieve" is legitimate. If one believes that motivation cannot be measured in terms of energy output nor amount of production, then the concept of the "need to achieve" will have limited usefulness.

Method of Assessing Self Concept

The self-concept or self-structure may be thought of as an organized configuration of perceptions of the self which are admissible to awareness. It is composed of such elements as the perceptions of one's characteristics and abilities; the percepts and concepts of the self in relation to others and to the environment; the value qualities which are perceived as associated with experiences and objects; and goals and ideals which are perceived as having positive or negative valence. (Rogers, 1951, p. 136)

Because of the profound amount of literature in the area of self-concepts, the concern here will be to review the methods used to evaluate self-concepts. The most commonly studied class of aspects of the phenomenal self include such attitudes as self-satisfaction, self-acceptance, self-esteem, self-favorability, congruence between self and ideal self, and discrepancies between self and ideal self. The word self-regard will be used to refer to all of these different aspects. One of the most commonly used techniques for assessing these concepts is the Q-sort or slight modification thereof (Stephenson, 1935). In the typical application of this technique a large number of personality-descriptive items are sorted by S into nine piles which are arranged on a continuum according to the degree to which they are characteristic of S's self. The subject is forced by the instructions

to place specified numbers of items in each pile so as to yield a quasi-normal distribution of items. The subject then sorts the same items once more into nine piles which are arranged on a continuum according to the degree to which they are characteristic of his ideal for himself. Again the instructions force him to produce a quasi-normal distribution of the items. The set of Q-sort items (Butler & Haigh, 1954) which has been used most extensively as an index of self-regard is the group of one hundred self-referent statements originally employed in the research on nondirective psychotherapy described in Rogers and Dymond (1954).

Different Q-sort sets differ greatly with respect to item length and complexity. They range from simple adjectives (e.g., Block & Thomas, 1955) to brief phrases or sentences (e.g., Butler & Haigh, 1954) to sentences with several parts (e.g., Edelson & Jones, 1954) and even to paragraphs (Stotland, Thorley, Thomas, Cohen, & Zander, 1957).

The most frequently used methods for inferring overall or general self-regard are questionnaires, rating scales, and adjective check lists. In terms of the operations used as a basis for inferring self-regard, several main categories of measures may be distinguished: (a) those which purport to tap self-acceptance directly, i.e., by asking S how he feels about his standing on the stated characteristics; (b) those which use this direct approach and also derive a

discrepancy score between separately obtained self- and ideal-ratings, answers, or checks; (c) those which utilize mainly a self-minus-ideal discrepancy score; (d) those which rely on S's reports of actual self only, with the ideal end of the scale being assumed by E, or the favorability of the terms being defined in terms of external judges' opinions of desirability.

Berger (1952) has made an omnibus-type (providing for many things at once) questionnaire purporting to measure Self-Acceptance and Acceptance of Others. As a basis for question construction, he used Scheerer's (1949) definition of the self-accepting and other-accepting person. Phillips (1951) developed another omnibus-type questionnaire by converting Scheerer's description into simple statements. Fey (1954; 1955; 1957) has used several slightly differing forms of an Acceptance of Self and Acceptance of Others Questionnaire. All these men have predicted on theoretical grounds that acceptance of self should lead to acceptance of other, i.e., self-acceptance scores should correlate positively with acceptance of others. These predictions have received general confirmation.

Some self-report methods utilize a (Self-Ideal) discrepancy score as well as a direct Self-Acceptance score to index self-regard. Bills' Index of Adjustment and Values (Bills, Vance, & McLean, 1951), is a well known example of this type of instrument. Much more information

is available on the norms, reliability, and validity of this instrument than on any other measure of self-concept (Wylie, 1961).

Shaw and Alves (1963) used this index in investigating the self-concept of bright academic underachievers, and found that underachievers have low self-concepts.

Some instruments measure general self-regard through discrepancy scores rather than by S's direct statements of self-acceptance, Worchel's (1957) 54 item Self-Activity Inventory (SAI) is a self-concept measure which purports to describe ways of coping with hostility, achievement, sexual and dependency needs, and their frustration. The rationale behind the choice of item content was that these four areas were apt to be major sources of conflict for men adapting to military life. Another measure of this type is the Interpersonal Check List developed by LaForge and Suczek (1955) to measure a number of variables defined by the Interpersonal Personality System (Leary, 1957). The check list is used to get (a) a self-description; (b) an ideal-self-description; and (c) a measure of "self-acceptance" in terms of discrepancies between self and ideal self descriptions.

Blocher and Schutz (1961) found that self- and ideal-self concepts on a descriptive check list were more similar to a high interest occupational stereotype than to the stereotype of an occupation rated by the high school senior

boys as being of low interest.

Behind the social influence theory of Janis, Hovland, and their associates (Hovland & Janis, 1959) lies the idea that persons with low self-esteem may find that yielding is instrumental in avoiding social disapproval and thus getting the social approval which they need.

Still another measure of this type is the use of Osgood's Semantic Differential Scales (Osgood, Suci, & Tannenbaum, 1957). Here S rates different concepts using paired-opposite adjectives on a seven-point scale, 4 being a point of indifference.

Oppenheimer (1965) using a modified semantic differential to investigate the relationship among self-concepts, occupational concepts, and occupational preferences, found a substantial relationship between self-concepts and occupational preferences. These results were consistent with Super's (1953) self-concept theory of vocational development. Super suggests that in choosing an occupation an individual is actually attempting to develop or implement a certain self-concept. The process of self-concept development is equated with vocational development. A study by Hunt (1967) seems to give further support to Super's assumptions.

Brownfian (1952) has developed a frequently mentioned two-part index of self-evaluation called "stability of the self-concept." On each of the 25 items, S rates himself four times, to indicate respectively: (a) his most favorable

realistic self-concept ("positive self-concept"); (b) his most unfavorable realistic self-concept ("negative self-concept"); (c) his "realistic private self-concept"; and (d) his most accurate estimate of himself as he believes other people in the group see him ("social self-concept"). The "stability" score is obtained by subtracting S's "positive self-concept" from his "negative self-concept" on each of the 25 items and summing across all items without regard to sign. He hypothesized that instability of the self-concept may be considered to be a correlate of "self-esteem" and is associated with "poor adjustment". His findings seem to confirm this view, but it is questionable whether "stability of self-concept" and "negative self-concept" are different constructs.

The present study was proposed to investigate the relationship of having made a definite occupational choice, the achievement of ego identity, one's self-concept, and academic achievement. The remainder of this paper will attempt to relate the literature cited to the hypotheses formulated, a design of investigation, the presentation of results, a discussion of the results, and appropriate conclusions.

METHODOLOGY

Subjects

The subjects used in this study were 320 male high school students in the tenth, eleventh, and twelfth grades attending the Ogden High and Clearfield High schools. These schools are located respectively in Ogden City and Davis County, Utah School Districts. The schools are so situated that they serve the various soci-economic classes as well as rural, urban, and suburban populations. Ogden High primarily serves urban and suburban population while Clearfield High primarily serves a rural and suburban population.

The investigator feels that although a strictly random sample was not obtained from Ogden High School, because of existing classroom placements, there was no reason to suspect that any biases existed. In an attempt to make the sample as near a random one as possible using the existing classroom placements, the investigator selected his sample from classes required by all male students, i.e., ROTC and Health.

In looking at the proportion of students from the three grade levels in these classes, two ROTC classes and four Health classes, it was noted that there were very few seniors. There were many seniors attending Ogden High who were not in these classes; however, a student could take these classes any time during his three years of high

school, and it is possible that most seniors had already done so during their sophomore and junior years. There was no reason for the investigator nor the director of student personnel to suspect that the students in these classes differed from the rest of the school population. It was, therefore, decided to randomly select 50 senior male students from Clearfield High School so that the ratio of the three grade levels to each other would be consistent with the general adolescent school population. These 50 seniors were randomly selected by taking every fourth name from a list of the 200 male seniors attending Clearfield High.

Three hundred and fifty-six male students were tested, but because complete data was not available for all 356, only 320 were used to arrive at the results presented in this paper. Of the 320, 66 were in the twelfth grade, 121 were in the eleventh grade, and 133 were in the tenth grade. Their age ranged from 15 to 18 years of age.

Assessment Instruments

To assess the hypotheses formulated with regard to the relationship of vocational choice, ego identity, self-concept, and academic achievement, a number of instruments were selected. A brief description of each of the instruments used in the study follows.

Vocational Choice Questionnaire

A questionnaire was prepared to assess whether the subject had made a choice, what his choice was, factors considered in making the choice, and some biographical information such as educational levels of each parent¹, father's occupation, religious affiliation², and attitudes and pressures in the home, which might have an influence in making an occupational choice (see Appendix A).

In answering item #1 of the questionnaire, if the subject circled choice 1 or 2, he was classed as Undecided in his occupational choice. If the subject circled choice 3, he was classed as Tentative in his occupational choice, and if S circled choices 4 or 5, he was classed as Definite in his occupational choice. The other items in the questionnaire were considered in light of the subject's response to the five alternatives in item one.

Content validity of the items in the questionnaire was assessed by submitting the measure to three psychologists in the field and each item was rated on a five-point scale (poor to very good) as to the degree it assessed vocational choice and/or factors which influence it. On the basis of these ratings, a preliminary form, 13 items, was pre-tested on a group of high school students not included in this study.

¹This information was obtained from school records.

²Ibid.

This form was revised, deleting those items which appeared ambiguous in the pre-testing. The final form, 10 items, was again submitted for rating by the judges. The average correlation between judges for the ratings was .98.

For many years textbook writers, vocational counselors, and educational researchers have looked at a student's vocational choice as being undependable from one year to the next. For sound guidance they usually suggest that an interest inventory be used to forecast what will happen in the student's vocational future.

Holland (1963) and Holland and Lutz (1967; 1968) in investigating how well a student's untutored vocational choice forecasts his choice at a later date and how well an interest inventory predicts this same choice, found evidence of high validity for self-expression and low validity for both the Strong Vocational Interest Blank and the Vocational Preference Inventory. Expressed vocational choice was clearly and substantially superior.

In light of these results, and the time factor involved in giving an interest inventory, a questionnaire was chosen to assess the vocational choice of the subjects in this study. However, the Kuder Preference Record--Vocational was given to a selected sample to further investigate the relationship of interest and expressed vocational choice.

Kuder Preference Record--Vocational

The Kuder was used to investigate further the relation-

ship between interests and expressed vocational choice. It was hoped that by using the Kuder, the investigator could discover whether a person's stated occupational choice was consistent with the type of things he ordinarily prefers to do. That is, to see if his interests were consistent with his stated vocational choice.

Consistency or inconsistency was determined by considering the profile score or scores above the 75th percentile, which according to Kuder (1960) lies between the 1 percent and 5 percent point of significance for normally distributed scores from tests having a reliability of .90, and comparing these patterns of interest to those relating to the various occupations or occupational areas. If the stated occupation was in one of the areas that corresponded to the high profile score or scores, then the choice was considered consistent with the interests of the individual. If the stated occupation was not in the areas corresponding to the high patterns, then the individual's choice was considered inconsistent with his interest preferences.

Index of Adjustment and Values

The Index of Adjustment and Values was used to measure aspects of self-regard: self-concept, self-acceptance, ideal self. This measure was developed by Bills, Vance and McLean (1951) and was designed to assess (a) the self-concept of the individual; (b) the attitude which the individual holds toward himself in his present condition; and (c) the

individual's concept of his ideal self, the values toward which he is striving. The total of the discrepancies between the self-concept and the concept of the ideal self is considered a measure of adjustment.

The Index consists of 49 adjectives arranged in columns. Each adjective is followed by three blanks. In regard to himself, S gives three answers to each adjective:

Col. I: How often are you this sort of person? (to be marked on a five-point scale from "most of the time" to "seldom").

Col. II: How do you feel about being this way? (to be marked on a five-point scale from "very much like" to "very much dislike").

Col. III: How much of the time would you like this trait to be characteristic of you? (to be marked on a five-point scale from "seldom" to "most of the time").

The sum of Col. I (with negative traits reversed) equals the Self score. The sum of Col. II is taken as a direct measure of Self-Acceptance. The sum of Col. III (with negative traits reversed) equals the Ideal Self score. The sum of the discrepancies between Cols. I and III is taken as the Self-Ideal discrepancy from which Self-Satisfaction is inferred.

Split-half reliabilities for 100 students range from .53 for Self scores (Col. I) to .87 for Self-Ideal discrepancies (Col. I-Col. III). Six-week test-retest correlations, with

varying numbers of Ss, range from .83 for Self-Acceptance (col. II) to .90 for Self (Col. I). Sixteen-week test-retest correlations for varying Ns range from .52 for Self-Ideal discrepancies (Col. I-Col. III) to .86 for Self scores (Col. I) (Bills's Manual for IAV, undated).

An excellent coverage regarding the validity of this instrument is reported by Bills (Manual for IAV, undated, p. 63-86) and will not be expounded on here. The studies reported give evidence that the Index is a valid measure of phenomenal self-regard. As was mentioned in the review of literature, there is more information available on the reliability and validity of this instrument than on any other measure of the self-concept (Wylie, 1961).

Ego Identity Scale

This scale was chosen to measure the degree of ego identity or identity achievement. It was developed by Rasmussen (1964) as a technique for investigating Erikson's concept of ego identity. Three derivatives of the criteria of health and ill-health specifically set forth by Erikson (1959; 1963) were selected for each of the first six psychosocial crisis stages. The scale consists of 72 statements or items reflecting these stages. Thus, each derivative is sampled by four items. To avoid response set, half of the items are cast so as to elicit a negative response and their location in the scale randomized. Subjects respond to the items in terms of general agreement or dis-

agreement, and a total score is obtained by the use of a scoring key (see Appendix B and C for scale and scoring key). An example of one derivative and statements reflecting this derivative from each of the six crisis areas as given by Rasmussen (1964, p. 818-819) with slight modification are as follows:

Crisis Stage I: Infancy (Basic Trust vs Mistrust)
 Derivative (Healthy): Sense of time perspective, i.e., future satisfaction is sufficiently predictable to be worth working and waiting for.
 Positive Statement: If a person wants something worthwhile, he should be willing to wait for it.
 Negative Statement: I lose interest in things if I have to wait too long to get them.

Crisis Stage II: Early Childhood (Autonomy vs Shame, Doubt)
 Derivative (Unhealthy): A fear of being shamed or publicly exposed to peers and leaders.
 Positive Statement: It doesn't worry me if I make a mistake in front of my friends.
 Negative Statement: It is better to say nothing in public than to take a chance on other people hearing you make a mistake.

Crisis Stage III: Play Age (Initiative vs. Guilt)
 Derivative (Healthy): Emotionally comfortable role experimentation in adolescent subsocieties, where discipline and boundaries are provided by the group.
 Positive Statement: A person who hasn't been a member of a well organized group or club at some time in his teens has missed a lot.
 Negative Statement: During the past few years I have taken little or no part in clubs, organized group activity, or sports.

Crisis State IV: School Age (Industry vs Inferiority)
 Derivative (Healthy): The individual anticipates achievement in work endeavors, which are a source of pleasure and recognition.
 Positive Statement: I like to tackle a tough job as it gives me a lot of satisfaction to finish it.
 Negative Statement: When it comes to working, I never do anything I can get out of.

Crisis Stage V: Adolescence (Ego Identity vs. Ego Diffusion)
 Derivative (Healthy): Sense of psychosocial well-being; being at home in one's body.

Positive Statement: It is very seldom that I find myself wishing I had a different face or body.

Negative Statement: I would get along better in life if I were better looking.

Crisis Stage VI: Early Adulthood (Intimacy vs Isolation)

Derivative (Healthy): The individual seeks and is comfortable in emotionally close relationships.

Positive Statement: Being without close friends is worse than having enemies.

Negative Statement: A person is a lot happier if he doesn't get too close to others.

The reliability coefficient of the final form (form III, after item analysis) of the EIS, using the Spearman-Brown prophecy formula, was .849 and .851 on two groups of 17-20 year old male recruits (Rasmussen, 1964).

To assure content validity of the statements, they were subjected to the test of being unanimously agreed upon by two judges as meeting the criteria for which they were written, i.e. the stage of psychosocial development and the specific derivative within the given stage.

To establish the nomological net which Cronbach and Meehl (1955) use as a philosophical basis for construct validity (or nomological validity, Campbell, 1960) Rasmussen showed evidence both of convergent and discriminant validity of ego identity as a concept. Discriminant validity was demonstrated when subjects meeting two different criteria of psychosocial adjustment were distinguished in a predicted manner on the basis of an operational measure of ego identity (EIS). Convergent validity was demonstrated when individuals who differed on an operational measure of ego identity (EIS) also differed in the same fashion on a operational measure of

self-acceptance, which is one aspect of the self-concept, there being a predictable positive relationship between measures of ego identity and self-acceptance.

The reliability coefficient for the Ego Identity Scale using the sample in the present study, (N = 320) was computed using the Kuder-Richardson formula 21 (Ferguson, 1966). The reliability coefficient for the sample of 15-18 year old male high school students in the present study was found to be .853. This is similar to the level of reliability obtained by Rasmussen (1964).

Procedure

The 320 male high school students were given the Vocational Choice Questionnaire (VCQ), the Index of Adjustment and Values (IAV), and the Ego Identity Scale (EIS). The testing was done during the regularly scheduled class periods over a two-day period on two consecutive weeks. Students in two class periods of ROTC were tested for one hour on each of two days, and the following week, students in four class periods of Health were tested for one hour on each of two days.

Counter-balancing was used so that any effect of the order of test presentation could be ruled out. Approximately half of the students took the VCQ and the EIS the first day during their class period and on the following day the IAV. The other half started their first day with IAV and completed

the second day with the VCQ and the EIS.

The IQ score (an average of test scores assessed on two occasions by the California Test of Mental Maturity) and his GPA were obtained for each subject from the school records.

Nineteen volunteers from the total sample took the Kuder Preference Record--Vocational. Volunteers were used because class arrangement and time allotted by the school for testing did not allow sufficient time that all could be tested.

The research has been divided into phases, part I dealing with all the 320 subjects and parts II and III dealing with sub-groups of the original sample population, as follows:

Part I

From their performance on the Questionnaire, subjects were grouped into one of three groups, Definite, Tentative, or Undecided, with respect to their vocational choice. These three groups were then examined with regard to their responses to the other items on the questionnaire assessing factors which can influence vocational choice: educational levels of each parent, father's occupation, information or factors considered about an occupation, religious affiliation, and attitudes and pressures in the home.

The three groups were compared on the basis of their performance on the various aspects of the self: self-concept, self-acceptance, ideal self, and adjustment (discrepancy between self and ideal self), as assessed by the Index of

Adjustment and Values. They were also compared with respect to their performance on the Ego Identity Scale, an operational measure of identity achievement or ego identity.

The grade levels were also compared with regard to their performance on each of the five variables: self-concept, self-acceptance, ideal self, adjustment, and ego identity. The inter-action between grade level and level of vocational commitment was, likewise, compared with respect to the five variables.

In all these comparisons, intelligence was held constant through statistical means, since it has been noted that higher intelligence facilitates higher performance on the five variables.

Part II

Those subjects grouped as Definite or Undecided and who had IQ scores of 110 or above were considered in the part of the study. Those subjects found in the two groups so defined having GPAs of 3.00 or above were classified as Achievers and those having GPAs of 2.50 or below were classified as Under-achievers.

It was assumed that an individual whose predicted academic performance placed him in the top 25% of the population and who actually performed at that level could be called an achiever. Conversely, it was assumed that an individual whose predicted performance placed him in the top 25% but whose actual performance over a significant period of time indicated that he

was in the lower 50% of the population could be called an underachiever.

The expected and the observed outcomes as to Achievers and Underachievers in each of the Vocational Choice Groups considered were then compared.

Part III

The Kuder Preference Record--Vocational was scored for the 19 subjects who took it. By checking how they answered the Vocational Choice Questionnaire, they were placed into two groups. Those who answered item #1 on the questionnaire with choices 1 or 2 were classes as Undecided, and those who answered with choices 3, 4, or 5 were classed as Decided, i.e., they had made a statement as to the occupation or occupational field they were going to enter.

Only those subjects who had taken the Kuder and had made a stated vocational commitment were further considered (9 boys). For these subjects the highest profile scores (above the 75th percentile) were compared with the patterns of interests related to the various occupations of occupational areas. If the stated occupational choice was in one of the areas that corresponded to the high profile score or scores, then the choice was considered consistent with the interests of the individual. If this correspondence did not occur, then the stated choice and interest preferences were considered inconsistent.

The expected and observed outcomes with regard to the

agreement of high interests (as measured by the Kuder) and stated vocational choice were then compared.

Statistical Procedures

In order to gain a perspective of the subjects and materials under investigation and to effectively test the stated hypotheses, the following statistical techniques were employed.

Analysis of covariance

A 3 x 3 analysis of covariance, controlling for intelligence was used to compare the main effects and the interactions of grade level and level of vocational commitment on the five variables: self-concept, self-acceptance, ideal self, adjustment (sum of discrepancies between self and ideal self), and ego identity, since higher intelligence has been noted in previous studies to facilitate higher performance (Rasmussen, 1964). Thus it was the desire of the investigator to keep the results free from the influence of IQ so that the contributions of the other variables could be better assessed. The F statistic was used to test the hypothesis that the populations means were equal.

Duncan range test

The Duncan range test was used to test those comparisons in the analysis of covariance which were significant, i.e., the population means differed. It was used to test which group

means were significantly different and in which direction the difference lay.

Chi-square

The chi-square test was used for those comparisons between observed and expected outcomes to assess the significance of the difference between scores.

Pearson product-moment correlation

Pearson product-moment correlation coefficients were computed to find the degree of relationship between variables. Correlation coefficients were computed between ego identity and achievement (as assessed by GPA) using the data for the 50 seniors from Clearfield High. There was no reason to suspect that different results would be obtained by using one grade level as opposed to sampling over the three grade levels, since Rasmussen (1964) found age to be correlated ($r = .04$) only slightly with scores on the Ego Identity Scale. Correlation coefficients were also computed for the total 320 Ss on the six variables: self-concept, self-acceptance, ideal self, adjustment (sum of discrepancies between self and ideal self), ego identity, and intelligence; and a correlational matrix was constructed.

RESULTS

The primary purpose of this study was to investigate the relationship of having made a definite vocational choice to the achievement of ego identity, the relationship of a definite occupational choice to one's self-concept, and the relationship of a definite occupational choice to academic achievement. The results of the data analysis will be considered under the headings of: (a) some characteristics of students making and not making an occupational choice; (b) data related to the hypotheses formulated at the beginning of this study; (c) relation of expressed vocational choice and measured interests; and (d) interrelationship between variables.

Some Characteristics of Students Making and Not Making an Occupational Choice

After the Ss had been divided into three Vocational Choice groups by their response to question #1, their responses to the other questions on the Vocational Choice Questionnaire were examined. No specific hypotheses was formulated since it was the intent only to better understand some of the characteristics of the subjects in the various levels of occupational commitment. Little is known regarding the characteristics of students who have or who have not made a vocational commitment, and it was desirable, therefore,

to help increase this knowledge if possible.

For the Definite (N = 112) and Tentative (N = 82) groups, questions 2 through 9 were examined, these being the questions included to assess characteristics of the subjects. For the Undecided (N = 126) group, only questions 5 through 9 were examined, these five being the only items answered by those undecided on a vocational choice after they expressed their indecision on item #1 of the questionnaire. Also the educational level of each parent and church affiliation (some churches have strong views on the value of education and work) of the subjects were examined.

The results of the chi-square examinations for independence (Ferguson, 1966) between the factors considered are presented in Tables 1 through 11. In each case the null hypothesis is used to express the existence of no relationship between factors, i.e., there is no difference between observed and expected values.

Table 1. Chi-square analysis of observed and expected frequencies for two levels of vocational commitment and the length of time the choice has been considered

Group	Length of Time					Total
	0 - 6 months	6 - 12 months	12 - 18 months	18 - 24 months	2 years or more	
Definite	5	21	16	21	49	112
Tentative	17	22	14	11	18	82
Total	<u>22</u>	<u>43</u>	<u>30</u>	<u>32</u>	<u>67</u>	<u>194</u>
Degrees of freedom = 4			$\chi^2 = 19.996$ ($P < .001$)			

In Table 1 is shown the comparison of the level of vocational commitment and the length of time the choice has been considered. The chi-square of 19.996 is significant at the .001 level of significance. The null hypothesis of no relationship is rejected, and the data indicates that the level of vocational commitment is a function of the length of time the choice has been considered. One will also note, in looking at Table 1, that almost two-thirds of the subjects expressing definite vocational choices had held this choice for over 18 months, and a large percentage of these for over two years. For those having tentative choices, on the other hand, two-thirds had held their choice for less than 18 months.

In Table 2, one sees the comparison of the level of vocational commitment and the importance placed on good grades in present course work. The chi-square of 1.583 is

not significant. The null hypothesis is not rejected, and it would appear that the level of vocational commitment is not dependent on the importance placed on grades.

The number of factors considered in making a vocational choice is presented in Table 3. The chi-square of 0.435 is not significant. Thus, the null hypothesis of no relationship between the number of factors considered and level of vocational commitment is accepted.

Table 4 presents the results of the comparison between three levels of occupational commitment, definite, tentative, and undecided, and the amount of discussion with parents concerning one's occupational plans. The chi-square of 66.740 is significant at the .001 level of significance. Therefore, the null hypothesis of no relationship between vocational commitment and discussion with parents is rejected. The data indicates a positive relationship between the adolescent's occupational commitment and the amount of discussion of vocational plans with parents. A larger percentage of those who have expressed a definite occupational choice fall at the upper end of the continuum of discussion with parents. Those with tentative choices have a larger percentage in the middle, and those who express undecidedness in their occupational choice have a larger percentage falling at the lower end of the discussion continuum.

Table 2. Chi-square analysis of observed and expected frequencies for two levels of occupational commitment and the importance placed on good grades.

Group	Unimportant	Neither Nor	Important	Total
Definite	16	7	89	112
Tentative	12	2	68	82
Total	<u>28</u>	<u>9</u>	<u>157</u>	<u>194</u>
Degrees of freedom = 2		$X^2 = 1.583$, not significant		

In looking at the father's occupation, Table 5, for the three vocational choice groups, the results indicate that the occupational level of the father does have an influence on a student's level of occupational commitment. The chi-square of 29.983 is significant at the .05 level of significance. Thus, the null hypothesis of no difference in the observed and expected frequencies is rejected. There appears to be some basis from the data to say that the higher up the occupational scale the father is, the more likely it is for the adolescent to have made a vocational choice.

Table 3. Chi-square analysis of observed and expected frequencies between two levels of vocational commitment and the number of factors considered in making the choice^a

Group	Number of Factors Considered			Total
	1 - 3	4 - 6	7 - 10	
Definite	18	52	42	112
Tentative	<u>12</u>	<u>42</u>	<u>28</u>	<u>82</u>
Total	30	94	70	194

Degrees of freedom = 2 $\chi^2 = 0.435$, not significant

^aFactors: duties, qualifications, preparation, employment outlook, method of entering, opportunities for advancement, salary and other rewards, conditions of work, typical place of employment, organizations.

Table 4. Chi-square analysis of observed and expected frequencies between levels of vocational commitment and the amount of discussion of vocational choice with parents

Group	Little	Some	Much	Total
Definite	14	42	56	112
Tentative	23	40	19	82
Undecided	66	46	14	126
Total	<u>103</u>	<u>128</u>	<u>89</u>	<u>320</u>

Degrees of freedom = 4 $\chi^2 = 66.740$ ($P < .001$)

Table 5. Chi-square analysis of observed and expected frequencies between levels of vocational commitment and father's occupation

Group	Occupation ^a									Total
	1	2	3	4	5	6	7	8	9	
Definite	7	17	14	10	19	11	2	25	7	112
Tentative	5	7	17	5	11	15	4	14	4	82
Undecided	<u>16</u>	<u>25</u>	<u>29</u>	<u>14</u>	<u>13</u>	<u>12</u>	<u>2</u>	<u>10</u>	<u>5</u>	<u>126</u>
Total	28	49	60	29	43	38	8	49	16	320

Degrees of freedom = 16 $\chi^2 = 29.983$ ($P < .05$)

^aOccupations: (1) unskilled, (2) semi-skilled, (3) skilled, (4) clerical or sales, (5) managerial, (6) sub-profession, (7) scientific, (8) professional, (9) executive.

Table 6. Chi-square analysis of observed and expected frequencies for levels of occupational commitment and parental feelings on career choice

Feelings	Group			Total
	Def.	Tent.	Undec.	
Have very strong feelings and outline what they want me to do.	6	5	6	17
Are interested and help me outline what I want to do.	56	34	55	145
Are interested but do not try to influence me.	45	41	59	145
Show little or no interest or are actively opposed to what I want to do.	5	2	6	13
Total	<u>112</u>	<u>82</u>	<u>126</u>	<u>320</u>

Degrees of freedom = 6 $\chi^2 = 2.895$, not significant

Parent's feelings on career choice, Table 6, for the three vocational choice groupings, appear not to be associated with the level of vocational commitment. The chi-square of 2.895 is not significant. Therefore, the null hypothesis of no relationship between level of vocational commitment and parental feelings on career choice is accepted.

The parent's feelings about grades, Table 7, likewise does not seem to have any relationship to an adolescent's having made or not having made an occupational choice. The chi-square of 4.250 is not significant. The null hypothesis of no relationship is, therefore, accepted.

Table 7. Chi-square analysis of observed and expected frequencies for levels of occupational commitment and parental feelings about grades

Feelings	Group			Total
	Def.	Tent.	Undec.	
Are very pleased	21	17	17	55
Are satisfied but think I should do better.	83	63	100	246
Do not care about marks as long as I do my best or as long as I pass.	8	2	9	19
Total	<u>112</u>	<u>82</u>	<u>126</u>	<u>320</u>
Degrees of freedom = 4	$\chi^2 = 4.250$, not significant			

In Table 8 is presented the comparison of two levels of occupational commitment and the influence of significant others. The chi-square of 12.336 is significant at the .05

level of significance. Thus, the null hypothesis of no relationship is rejected. There is an apparent relationship between influence exerted by others and the adolescent's level of vocational commitment. Upon further examination, one notes that more of the students expressing a definite vocational choice feel that no one had an influence on them than those students expressing tentative choices. Also, the tentative group seems to be influenced more by parents than the definite group whose influence appears to come from outside the home.

Table 8. Chi-square analysis of observed and expected frequencies between two levels of occupational commitment and person or persons having the greatest influence on occupational choice

Influence	Group		Total
	Def.	Tent.	
Parents (Father, Mother, or both).	22	33	55
Siblings and other relatives	8	6	14
Friends, Teacher, Counselor, etc.	20	13	33
Person or persons in the field or profession.	26	7	33
No One	36	23	59
Total	112	82	194
Degrees of freedom = 4		$\chi^2 = 12.336$ ($P < .05$)	

In considering the educational level of the parents, Tables

9 and 10, the data analysis reveals no significant relationship between the educational levels of either the father or mother in determining whether a student has made an occupational choice. The chi-squares of 6.922 and 12.178 are not significant. Thus, the null hypothesis of no relationship is accepted because the results obtained are what could be expected by chance alone.

Table 9. Chi-square analysis of observed and expected frequencies between levels of occupational commitment and educational levels of the father

Educational Level	Group			Total
	Def.	Tent.	Undec.	
Less than high school graduate.	20	15	36	71
High school graduate.	16	12	20	48
High school graduate plus 2 years college or technical training.	44	30	45	119
Completed 4 years or more of college (has B.S., M.S., Ph.D., M.D., etc.).	32	25	25	82
Total	112	82	126	320
Degrees of freedom = 6	$\chi^2 = 6.922$, not significant			

The question of whether the religious values held by the church to which one belongs have an influence on whether one has made an occupational choice is considered in Table 11.

The chi-square of 7.435 is not significant. Therefore, the null hypothesis of no relationship existing between church preference and vocational commitment is not rejected. There is no apparent relationship between the religious values held by the adolescent, as dictated by his church, and his having or not having made an occupational commitment.

Table 10. Chi-square analysis of observed and expected frequencies between levels of occupational commitment and educational levels of the mother

Educational Level	Group			Total
	Def.	Tent.	Undec.	
Less than high school graduate.	18	14	30	62
High school graduate.	40	33	32	105
High school graduate plus 2 years college or technical training.	32	20	49	101
Completed 4 years or more of college (has B.S., M.S., Ph.D., M.D., etc.).	22	15	15	52
Total	112	82	126	320
Degrees of freedom = 6	$\chi^2 = 12.178$, not significant			

Table 11. Chi-square analysis of observed and expected frequencies for level of vocational commitment and church preference

Church Preference	Group			Total
	Def.	Tent.	Undec.	
Catholic (Greek Orthodox or Roman).	6	11	13	30
Protestant	18	8	12	38
Latter Day Saint (Mormon)	76	53	81	210
Other	12	10	20	42
Total	112	82	126	320

Degrees of freedom = 6 $\chi^2 = 7.435$, not significant

Data Related to the Hypotheses

In order to test the hypotheses, three statistical procedures were employed: (a) analysis of covariance, (b) Duncan range test, and (c) chi-square.

A 3 x 3 analysis of covariance, controlling for intelligence, was used to compare the main effects and the interaction of grade level and level of vocational commitment on five variables: self-concept, self-acceptance, ideal self, adjustment (all aspects of self-regard), and ego identity. The F statistic (Ferguson, 1966) was employed to determine the significant difference among multiple means on the variables of self-concept, self-acceptance, ideal self, adjustment (sum of discrepancies between self and ideal self),

and ego identity. Throughout this section, the experimental hypotheses will be treated in the null form, i.e., no significant difference exists between means.

Hypothesis 1. Ego identity: Adolescents who have not settled on a vocational choice (as assessed by the Vocational Choice Questionnaire) will have lower ego identity (as measured by the Ego Identity Scale) than adolescents who have settled on a vocational choice.

a. Those with a stated Definite vocational choice will have higher ego identity than those judged as either Tentative or Undecided.

b. Those judged with a Tentative choice will have a higher ego identity than those judged Undecided.

The null hypothesis was that there will be no difference in the ego identity achievement for the three groups. Data for the analysis of covariance on the variable of ego identity are presented in Table 12. The F value of 7.447, with 2/310 degrees of freedom, is significant at the .01 level of significance; and this indicates that a difference exists on the variable, ego identity, between the groups established on the basis of expressed vocational commitment.

The F value of 2.264, with 2/310 degrees of freedom, and the F value of 1.033, with 4/310 degrees of freedom are not significant. Therefore, the difference in ego identity achievement of students in different grade levels or from the interaction of grade level and level of vocational

commitment, seems to be essentially the same, and the null hypothesis of no difference is accepted.

Table 12. Analysis of covariance testing differences between level of vocational commitment, grade level, and their interaction on ego identity as measured by the Ego Identity Scale

Source		Mean	SD	Degrees of Freedom	Mean Square	F Value
Grade	(12)	52.21	9.38	2	202.994	2.264
	(11)	51.22	9.29			
	(10)	49.35	10.49			
Group	(D)	51.50	9.13	2	667.774	7.447**
	(T)	53.34	10.70			
	(U)	48.11	9.38			
Group x Grade	(D X 12)	53.36	8.62	4	92.661	1.033
	(D X 11)	51.24	8.83			
	(D X 10)	50.91	9.58			
	(T X 12)	56.64	7.68			
	(T X 11)	52.43	10.63			
	(T X 10)	52.63	12.12			
	(U X 12)	48.48	9.76			
	(U X 11)	50.35	9.68			
	(U X 10)	45.72	9.45			
Error				310	89.665	

**Significant beyond the .01 level of significance.

In order to test which of the vocational choice group means were significantly different and in which direction the difference lay, the Duncan range test was employed (Li, 1957). The results are summarized in Table 13. The significant studentized range at the .01 level of significance for a range of three means is 3.61; the difference

between the largest and smallest mean is greater than this value and the difference is, therefore, considered significant. Likewise, the significant studentized range at the .01 level of significance is 3.16 for a range of two means; the difference between means exceeds this value and thus is also considered significant.

Table 13. Duncan range test for significant differences between the Definite, Tentative, and Undecided vocational choice groups on the variable ego identity

	Groups		
	Undecided	Definite	Tentative
Means	48.111	<u>51.500</u>	<u>53.378^a</u>
Difference between means		3.389**	5.267** 1.878

^aThe means underlined do not differ significantly but are superior to the mean not underlined.

**Significant at the .01 level of significance.

The hypothesis that those adolescents having a Definite vocational commitment would have higher ego identity than those with an Undecided vocational commitment was supported by the data. However, with respect to the hypothesis that Ss indicating Definite vocational choices would have higher ego identity than those judges Tentative, this was not supported by the data.

The hypothesis that adolescents judged with a Tentative choice would have a higher ego identity than those judged Undecided was supported by the data.

Hypothesis 2. Aspects of self-regard; Adolescents who indicate they have made a definite vocational choice (as assessed by the Vocational Choice Questionnaire) will demonstrate a higher self-concept and have a more positive adjustment (as measured by the Index of Adjustment and Values) than adolescents without a definite vocational choice.

a. Those judged as having made a Definite vocational choice will have a higher self-concept and have a more positive adjustment than those judged as either Tentative or Undecided.

b. Those judged as having made a Tentative vocational choice will have a higher self-concept and have a more positive adjustment than those judged as Undecided.

Since there are four facets involved in self-regard as measured by the Index of Adjustment and Values, each facet will be considered separately. However, hypotheses have been formulated to consider only two of the four: self-concept and adjustment.

Self-concept. The null hypothesis was that there will be no significant difference in self-concept scores for the three groups. Data for the analysis of covariance on the variable of self-concept are presented in Table 14. The F value of 6.7656, with 2/310 degrees of freedom, is

significant at the .01 level of confidence. Since the null hypothesis is rejected, it can be inferred that the groups established on level of vocational commitment do differ in their self-concept.

The F value of 2.6495, with 2/310 degrees of freedom, and the F value of 0.4396, with 4/310 degrees of freedom, are not significant. Thus, the difference in self-concept is not a result of grade level nor the interaction of grade level with level of vocational commitment.

Table 14. Analysis of covariance testing for differences in self-concept as measured by the Index of Adjustment and Values as a result of level of vocational commitment, grade level, or their interaction

Source		Mean	SD	Degrees of Freedom	Mean Square	F Value
Grade	(12)	178.11	19.14	2	1167.58	2.6495
	(11)	185.74	19.47			
	(10)	178.27	24.08			
Group	(D)	182.87	19.91	2	2981.87	6.7656**
	(T)	188.37	18.58			
	(U)	176.48	23.85			
Group x Grade	(D X 12)	176.64	16.69	4	193.76	0.4396
	(D X 11)	184.27	17.47			
	(D X 10)	180.25	22.51			
	(T X 12)	188.65	14.32			
	(T X 11)	191.11	16.42			
	(T X 10)	185.00	22.66			
	(U X 12)	172.67	21.44			
	(U X 11)	183.00	22.32			
	(U X 10)	172.14	25.49			
Error				310	440.74	

**Significant beyond the .01 level of significance.

In order to test which vocational group means differ significantly and in which direction, the Duncan range test was employed. The results are summarized in Table 15. The significant studentized range at the .01 level of significance for a range of three means is 8.00; the difference between the largest and smallest mean is greater than this value and the difference is considered significant. Likewise the significant studentized range at the .05 level of significance is 5.97 for a range of two means; the difference between means exceeds this value and is therefore considered significant.

Table 15. Duncan range test for significant differences between means for the Definite, Tentative and Undecided vocational commitment groups on the variable self-concept

	Groups		
	Undecided	Definite	Tentative
Means	176.476	<u>182.866</u>	<u>188.366^a</u>
Difference between		6.390*	11.890** 5.500

^aThe means underlined do not differ significantly but are superior to the mean not underlined.

*Significant at the .05 level of significance.

**Significant at the .01 level of significance.

The hypothesis that adolescents indicating a Definite vocational commitment would have a higher self-concept was

supported by the data. However, the hypothesis that Ss indicating Definite vocational choices would have a higher self-concept than those judged Tentative was not upheld by the data.

The hypothesis that adolescents judged with a Tentative choice will have a higher self-concept than those judged Undecided was supported by the data.

Table 16. Analysis of covariance for testing differences in self-acceptance as measured by the Index of Adjustment and Values as a result of level of vocational commitment, grade level, or their interaction

Source		Mean	SD	Degrees of Freedom	Mean Square	F Value
Grade	(12)	171.85	22.86	2	3699.19	1.385
	(11)	175.22	27.21			
	(10)	179.99	74.72			
Group	(D)	172.24	22.75	2	6302.26	2.359
	(T)	188.06	91.90			
	(U)	172.57	29.22			
Group x Grade	(D X 12)	167.23	23.30	4	3960.70	1.483
	(D X 11)	175.43	22.16			
	(D X 10)	172.60	23.00			
	(T X 12)	180.53	14.99			
	(T X 11)	175.14	25.36			
	(T X 10)	207.40	14.86			
	(U X 12)	170.15	25.68			
	(U X 11)	175.12	32.08			
(U X 10)	171.38	28.44				
Error				310	2671.09	

Self-acceptance. The null hypothesis is that there would be no significant difference in self-acceptance scores for the three groups. Data for the analysis of covariance on the

variable self-acceptance are presented in Table 16. None of the F values are significant. Therefore, the difference in self-acceptance scores as a result of level of vocational commitment, grade level, or their interaction, appears to be essentially the same and the null hypothesis is accepted.

Ideal self. The null hypothesis is that there would be no difference in ideal self scores for the three groups. Data for the analysis of covariance on the variable of ideal self are presented in Table 17.

Table 17. Analysis of covariance for testing differences in ideal self as measured by the Index of Adjustment and Values as a result of level of vocational commitment, grade level, or their interaction

Source		Mean	SD	Degrees of Freedom	Mean Square	F Value
Grade	(12)	212.02	20.23	2	2788.23	5.560**
	(11)	211.63	19.81			
	(10)	201.15	28.48			
Group	(D)	207.49	22.55	2	1023.75	2.041
	(T)	213.27	19.14			
	(U)	203.39	28.08			
Group x Grade	(D X 12)	207.77	22.81	4	750.48	1.500
	(D X 11)	208.81	20.00			
	(D X 10)	206.45	24.42			
	(T X 12)	218.82	14.31			
	(T X 11)	216.60	17.37			
	(T X 10)	206.23	21.75			
	(U X 12)	211.19	20.75			
	(U X 11)	210.22	21.00			
	(U X 10)	192.48	33.89			
Error				310	501.49	

**Significant beyond the .01 level of significance.

The F value of 5.560, with 2/310 degrees of freedom, is significant at the .01 level of significance, and this indicates a difference exists on this variable between grade levels only. The F values for the comparisons of level of vocational commitment and interaction are not significant.

In order to test which grade level means differ significantly and in which direction, the Duncan range test was employed. The results are summarized in Table 18.

Table 18. Duncan range test for significant differences between means for three grade levels, tenth eleventh, and twelfth, on the variable ideal self

	Grades		
	Tenth	Eleventh	Twelfth
Means	201.150	<u>211.636</u>	<u>212.015^a</u>
Difference between means		10.486**	10.865** 0.379

^aThe means underlined do not differ significantly but are superior to the mean not underlined.

**Significant at the .01 level of significance.

The significant studentized range at the .01 level of significance for a range of three means is 9.02; the difference between the largest and smallest mean is greater than this value and is therefore considered significant. The significant studentized range at the .01 level of significance is 7.56 for a range of two means; the difference between means exceeds

this value and is likewise considered significant.

These findings appear to indicate that adolescents in the tenth grade have lower ideal self scores than those in either the eleventh, or twelfth grades. However, there appears to be no difference in ideal self scores between students in the eleventh and twelfth grades.

Thus the null hypothesis was upheld on the variable ideal self for the level of vocational commitment and the interaction, but was rejected with regard to the grade level of the adolescents investigated.

Table 19. Analysis of covariance testing for differences in adjustment as measured by the Index of Adjustment and Values as a result of level of vocational commitment, grade level, or their interaction

Source		Mean	SD	Degrees of Freedom	Mean Square	F Value
Grade	(12)	38.85	20.28	2	169.817	0.430
	(11)	36.48	17.62			
	(10)	39.22	19.36			
Group	(D)	37.80	18.54	2	445.135	1.128
	(T)	36.60	16.95			
	(U)	41.79	20.43			
Group x Grade	(D X 12)	36.36	20.05	4	44.559	0.113
	(D X 11)	36.38	18.13			
	(D X 10)	39.38	18.41			
	(T X 12)	38.65	16.13			
	(T X 11)	34.40	15.71			
	(T X 10)	38.00	18.95			
	(U X 12)	41.00	23.10			
	(U X 11)	38.04	18.69			
	(U X 10)	39.78	20.89			
Error				310	393.787	

Adjustment (discrepancy score). The null hypothesis is that there would be no significant difference in adjustment (sum of discrepancy scores between ideal self and self-concept) for the three groups. Data for the analysis of covariance on the variable of adjustment are presented in Table 19. None of the F values are significant and the null hypothesis is therefore accepted. The findings indicate that there is no difference in the adjustment of the adolescents investigated as this variable is defined and measured by the Index of Adjustment and Values.

Thus with regard to the totality of Hypothesis 2, the hypothesis was confirmed as it relates to adolescents with a vocational commitment having a higher self-concept than those without, but was rejected in terms of adolescents with a vocational commitment having a more positive adjustment than those without.

Hypothesis 3. Achievement: Adolescents who have a definite vocational choice will be rated as achievers as opposed to ratings as underachievers for those adolescents without a definite vocational choice.

The null hypothesis is that there would be no difference in the number of achievers and underachievers found in both groups of vocational commitment. The results of the chi-square comparison are presented in Table 20.

The proportion of achievers and underachievers does not appear to be dependent on the level of vocational commitment.

The chi-square of 0.0317 is not significant. Thus Hypothesis 3, that more adolescents who had made a definite vocational choice would be classified as achievers than adolescents who had not made a definite choice, was rejected.

Table 20. Chi-square analysis of observed and expected frequencies of achievers and underachievers for two groups of vocational commitment

Group	Achievers	Underachievers	Total
Definite	28	17	45
Undecided	29	19	48
Total	57	36	93

Degrees of freedom = 1 $X^2 = 0.0317$, not significant

Relationship of Expressed Vocational Choice and Measured Interests

Because all the subjects could not be given the Kuder as the time allotted for the testing was limited (school administrators felt that no more than two class periods could be justified), only volunteers were used. In each class period tested, those finishing the other tests in sufficient time and who expressed a desire to take the Kuder were given the opportunity.

The number completing the Kuder Preference Record--Vocational was nineteen. Nine of these were found to have expressed a vocational preference on the Vocational Choice

Questionnaire. Of these nine, two were found to have made choices which were inconsistent with their measured interests as assessed by the Kuder.

In order to test the hypothesis that students' expressed vocational choices are consistent with their interests as measured by the Kuder, the data were submitted to a chi-square analysis. The results of this analysis are presented in Table 21. The data seem to indicate that stated vocational goals are consistent with preferred interests of the individual.

Thus there does appear to be a positive relationship between self-expressed vocational choice and measured interests.

Table 21. Chi-square analysis of observed and expected frequencies of agreement between high interests as measured by the Kuder Preference Record-- Vocational and stated vocational choice

Agreement	Observed	Expected	$(O-E)^2$	$(O-E)^2/E$
Consistent	7	4	9	2.25
Inconsistent	2	5	9	1.80
Total	9	9		
Degrees of freedom = 1			$X^2 = 4.05$ (P = .05)	

Interrelationship Between Variables

It was felt desirable to investigate the degree of relationship between ego identity and achievement. Rasmussen (1964) found a significant positive correlation between

operational measures of self-acceptance and ego identity. Since self-acceptance generally demonstrates a significant relationship with levels of achievement, it was felt that there may also be a significant relationship between ego identity and achievement, i.e., those having high ego identity would also demonstrate high achievement.

A Pearson product-moment correlation coefficient was computed for the 50 senior students at Clearfield High (GPAs were only available for these students at all levels of intelligence). It was felt that no biasing of the results would occur by using only one grade level instead of sampling over all three grade levels. This assumption was based on the finding of Rasmussen (1964) of a nonsignificant correlation ($r = .04$) between age and scores on the Ego Identity Scale for a group of similar age range as that used in the present study.

A correlation coefficient of .19 was obtained, which is not significant. With an N of 50, a correlation of at least .279 is necessary for statistical significance at the .05 level, and a correlation of .360 is required at the .01 level. Therefore, it can be concluded that ego identity and achievement in this study are not significantly related.

The interrelationships between all six variables (ego identity, intelligence, self-concept, self-acceptance, ideal self, and adjustment) considered in this study for the 320 subjects were investigated. Pearson product-moment correlation coefficients were computed for the various combinations of variables. With 318 degrees of freedom, a correlation of

.110 is required for statistical significance at the .05 level, and a correlation of .144 is required for significance at the .01 level. The intercorrelation matrix is shown in Table 22.

Table 22. Simple correlation matrix of six variables for senior high school boys, N - 320

Variables	2	3	4	5	6
1. Ego Identity	.097	.36**	.30**	-.039	.098
2. Intelligence (IQ)		.094	.092	-.032	.000
3. Self-Concept			.68**	.018	.29**
4. Self-Acceptance				-.81**	.25**
5. Ideal Self					-.16**
6. Adjustment					

**Significant at the .01 level of significance.

DISCUSSION

It was the aim of this study to investigate some relationships which are involved or implied in Erikson's contention that adolescents' inability to settle on an occupational choice causes them to temporarily overidentify with peer group heroes (ego diffusion, lack of solidified ideas of self and goals for life, and a need to seek external supports). These relationships were namely, the relationship of a definite vocational choice to the achievement of ego identity, to one's self-concept, and to academic achievement.

It was also the purpose of this study to determine some of the characteristics of adolescents who have and who have not made a vocational commitment. This was accomplished by considering a number of factors: educational level of parents, father's occupation, number of factors considered in making a choice of an occupation, religious affiliation, and attitudes and pressures in the home.

Characteristics of Adolescents Having and Not Having Expressed Vocational Commitments

The findings of this study seem to indicate that of the adolescents considered, those who indicated a definite vocational choice had been committed to this choice for a longer period of time than those indicating only a tentative choice. In considering the percentage of students at the

various levels of time that the choice was considered, in Table 1, it is interesting to note that about two-thirds of the definite vocational choice group had been committed to their choice for 18 months or longer as opposed to less than 18 months for a similar percentage of the tentative group. This would seem to imply that vocational commitment rather than being a decision which occurs suddenly is more of a developmental process (Holland, 1963; Siegelman & Peck, 1960; Super, 1953). It would also seem important in view of these findings that we give more consideration to acquainting students more intensely with the world of work and vocational planning at earlier grade levels than we do at present. In line with the formulations developed in the literature that vocational development proceeds hand in hand with self-concept development, it would be logical that if we could aid an individual to formulate an identity for himself vocationally, we would also be assuring a more positive self-concept and adjustment.

The finding that good grades are of seemingly equal importance to both vocationally committed groups (definite or tentative) brings one to the conclusion that importance placed on grades is not a direct contributor to an adolescent's level of vocational commitment. Importance placed on grades is done independently of whether one has chosen an occupation or not or how devoted he is to that choice. It can generally be expected that good grades will be seen by students as

important, particularly by those in high school, since grades are viewed by society as reflections of the character and quality of an individual. This is particularly so in our middle class oriented one.

Discussion of vocational choice with parents does appear to have some relationship with the level of commitment at which a student is found. The findings lead one to conclude that the adolescent who expressed a definite vocational choice had the most discussion with his parents, and the one who expressed indecision about a vocational choice has had the least discussion with his parents. The adolescent with a tentative choice falls midway between the two ends of the continuum. It would seem that when the adolescent has an opportunity for feedback on his ideas and aspirations, he is better able to make commitments and resolve his indecision. Feedback gives the adolescent a chance to reassess his values, put issues in the proper perspective, and receive information on what is valued by others. It has been concluded by many social scientists that when people have an opportunity to examine all aspects of a problem, they are more committed to their course of action than those who see only one side of the problem. Thus, the adolescent who openly discusses his vocational choice with his parents or other significant others, is the one who is better able to feel confident that he has made the right decision and can be more committed to that choice.

The level of father's occupation as indicated by the

literature (Marr, 1965) is not related to having made a vocational choice. The finding by the present study of a relationship between father's occupation and level of vocational commitment is not in agreement with Marr. It would seem a logical assumption that the higher up the occupational scale the father is, the more pressure there is in the home around the area of choosing an occupation. The parents in those homes where the father's occupation is high on the occupational scale would be more interested in helping their children arrive at an occupational decision and what that decision was than perhaps, those parents in homes with the father at the lower levels of the occupational scale. Future research would do well to consider this area further.

Parental feelings about career choice does not seem to have any relationship to level of vocational commitment. However, all three levels of vocational commitment considered, characterized their parents as either interested and attempting to aid in career decisions or as interested but giving no direction.

Likewise, for the three groupings of vocational commitment, there was no indication of a relationship between where they placed themselves in indicating their vocational commitment and their parents' feelings about grades in course work. All three vocational choice groupings see their parents as being pleased with their academic performance as this is depicted by grades, but they also see them as expressing a desire for better and

better performance.

Both groups who had made a vocational commitment (definite or tentative) seem to have considered the same number of factors in making that choice. Thus, this is not a distinguishing characteristic which could differentiate one who is only tentative in his choice from one who is definite. It is possible that before any vocational decision making can be made, a number of factors would have to have been considered, i.e., such things as preparation, duties, qualifications, salary, methods of entering. The question as it was worded may have been a leading question and would have given more definitive results if it had been phrased as an open-ended question.

The findings of this study are consistent with the literature (Paterson, 1962) that significant others do have an influence on making vocational commitments. The literature also indicates that early deciders are more self-directing (Marr, 1965). This would, perhaps account for the larger number of those expressing a definite choice, feeling that no one had influenced their decision. These adolescents, expressing a definite choice, appearing to be more independent, can have some basis in accounting for the apparent external influence working in their vocational decision making, as opposed to the more home bound parental influence shown by the tentative group.

The finding of no relationship between educational level

of parents and whether a student has made an occupational choice, is somewhat surprising. A logical expectation seemed to be that adolescents who have parents at the higher educational levels would receive more counsel and direction from their parents, and in turn would be more decided with regard to their vocational goals. Because of the positive relationship between educational level and occupational level, the finding of a relationship between vocational commitment and father's occupational level leads one to expect a similar relationship between vocational commitment and parents' educational levels. It will remain for further studies to see if the results obtained here are consistent with the general adolescent population or are peculiar to the group considered in this study.

The finding of no relationship between church preference and vocational commitment seems to indicate that religious values do not have a part in making or not making a vocational choice. Man's tendency to try to separate religious values from secular values may form some basis for the results found in this study.

Taken together, these findings give some understanding into factors which have or have not affected the adolescent's vocational commitment in this study. Vocational commitment of the adolescents considered in this study seems to be a function of time, the amount of feedback and discussion with parents, the father's occupation, and the influence of

significant others. There was no relationship found with regard to educational level of parents, to parental feelings about career choice or grades, to religious affiliation, to the number of factors considered regarding an occupation, nor to the importance placed on grades by the adolescents.

These conclusions are generalizable to the extent to which this particular sample of senior high school boys is typical of the general adolescent population.

Hypotheses

Hypothesis 1

The first hypothesis was that adolescents who have not settled on a vocational choice will have lower ego identity than either adolescents who have a tentative vocational choice or adolescents who have made a definite vocational choice. It was also hypothesized that adolescents who have indicated a definite vocational choice will have a higher ego identity than those adolescents who have made a tentative choice.

The findings of the analysis of covariance and the Duncan range test reported in Tables 12 and 13 tend to support this hypothesis. However, it was found that adolescents who had made either definite or tentative vocational choices did not differ significantly in their ego identity as measured by the Ego Identity Scale. Apparently the most important thing as Erikson deals with ego identity versus identity

diffusion is to have made some commitment even if it is only a tentative one. This seems to give the adolescent an anchor point around which he can then stabilize his ego integration. He can now reconcile his expectations for himself and with others' expectations for him.

The achievement of ego identity does not appear to be related to age or educational attainment (grade level) for this sample of adolescents. This finding is consistent with the findings of Rasmussen (1964) when he noted a non-significant correlation between age and ego identity scores.

There was no interaction between grade level and level of vocational commitment on the variable ego identity, and thus, an important factor for the significant difference in ego identity appears to be, having made or not having made a vocational commitment.

The question of whether ego identity precedes or follows occupational commitment cannot be answered from the present study. All that can be inferred is that a positive relationship exists between these two variables.

Further research might well look into this area to assess which precedes which, the ego identity or the vocational choice, or do they just develop together. One could, perhaps, select adolescents who have low ego identity and who have not made a vocational commitment; aid the subjects experimentally through counseling to make a vocational commitment and then reassess their ego identity achievement to see if it has been increased

through the action of the student making a vocational choice.

Hypothesis 2

The second hypothesis was that adolescents who have indicated a definite vocational choice will have a higher self-concept and have a more positive adjustment than either adolescents with a tentative vocational choice or those who are undecided. It was also hypothesized that those with a tentative vocational choice will have a higher self-concept and a more positive adjustment than those adolescents who are vocationally undecided. The results of the analysis of covariance and the Duncan range test, presented in Tables 14 and 15, tend to support the first part of this hypothesis, self-concept. However, with respect to adjustment, the data presented in Table 19, does not support the latter part of the hypothesis.

The findings indicate that adolescents who have made either a tentative or definite vocational choice do not differ significantly with respect to their self-concept. Adolescents, however, who have expressed a definite or a tentative choice do differ significantly in their self-concept from those who are vocationally undecided. Thus, those adolescents who have expressed a vocational commitment have a higher self-concept than those who are undecided.

The literature suggests (Hunt, 1967; Super, 1953) that vocational development and self-concept development proceed

together. The literature (Galinsky & Fast, 1966; Holland, 1963; Siegelman & Peck, 1960; Super, 1951, 1953) likewise suggests that the process of choosing an occupation involves checking the compatibility of the occupation and self-concept. For such comparisons to proceed effectively, a positive and well integrated self-concept is considered necessary.

The findings of this study regarding the relationship of positive self-concept and vocational commitment appear consistent with these previous studies.

The question of whether positive self-concept precedes or follows vocational commitment cannot be answered from the data in the present study. The answer to this question will remain for further research to disclose.

The adjustment of the adolescent sample in this study was not dependent on the level of vocational commitment. The findings indicate no difference in the adjustment (sum of discrepancies between self and ideal self) of any of the three vocational choice groups.

In further analyzing other aspects of self-regard (self-acceptance and ideal self), the findings indicate that neither self-acceptance nor ideal self is related to level of occupational commitment. The literature reports that having made a vocational choice is not related to self-regard or variability in self-ratings. The findings of the present study concerning self-acceptance, ideal self, and adjustment (discrepancies between self and ideal self) are in general

agreement.

One would suspect that even though adolescents differ on self-concept (where he stands on his goals for himself), they would have agreement in their ideal self concepts (values toward which he is striving), since they are all striving for similar basic goals.

The results reveal that ideal self is related to grade level. The adolescents in this study in the tenth grade had lower ideal self scores than those in grades 11 or 12. There was no difference in grades 11 and 12 with respect to ideal self score, indicating perhaps that as the child enters adolescence there are increasing expectations made on him at each grade level until he reaches the last years of high school where he enters a transition period. This is a time also when adolescents tend to feel that what they are is not good enough for the role society has in store for them. Feeling this way, self-expectations (ideal self) are increased until late adolescence when ego identity achievement culminates and vocational commitments are made. The literature indicates that ideal self-perceptions of subjects in late adolescence are more similar than different (Ckicking, 1958).

Hypothesis 3

The third hypothesis was that adolescents who have a definite vocational choice will be rated as achievers as opposed to ratings as underachievers for those adolescents without a definite vocational choice. The results of the chi-square

comparison, presented in Table 20, do not support the hypothesis. The proportion of achievers and underachievers in this study does not appear to be dependent on the level of vocational commitment.

The literature (Krippner, 1961; Todd, Terrel, & Frank, 1962) presents a contrary picture with evidence that achievers have decided on definite vocational goals and that underachievers tend to be vocationally undecided. Wilson and Morrow (1962) found achievers expressing higher career goals than nonachievers but both groups had made some vocational commitment. This finding is more consistent with the findings of the present study, but in the findings of Chopra (1967) a larger proportion of achievers had some plans for a future occupation and higher occupational expectations as compared to underachievers.

There is an apparent lack of agreement in the literature as to what can be expected, and the results of the present study do not appear to aid in its solution. It would seem logical that more investigation is needed in the area of vocational commitment and achievement level. It perhaps would be better in future studies to group both tentative and definite vocational commitments together, in light of the findings of this study that adolescents with definite and tentative vocational choices do not differ in ego identity or self-concept, both of which are related to achievement. Thus, one would be comparing vocationally committed with

vocationally undecided.

The objectives of this study appear to have been met, which were to investigate the relationship of occupational choice to ego identity achievement, to self-concept, and to academic achievement, as these are related to Erikson's contentions that it is the adolescents' inability to settle on an occupational choice which disturbs them and results in a sense of identity diffusion (lack of solidified ideas or self, goals for life, and a need to seek external supports). Differences were found to exist between those who had expressed a vocational commitment and those who were vocationally undecided in terms of: (a) ego identity achievement, and (b) self-concept. In each case, the reported differences were in favor of those adolescents who had expressed a vocational choice. No difference was found for adolescents who had expressed a vocational commitment compared to adolescents who were vocationally undecided in terms of: (a) their being classed as an achiever or an underachiever, or (b) in their adjustment (discrepancies between self and ideal self).

The overall findings give support to Erikson's theoretical formulations regarding adolescence and more particularly, to his thoughts on ego identity. Although a cause and effect relationship was not demonstrated for his specific formulation that, it is the adolescents' inability to settle on an occupational choice which disturbs them and results in ego

diffusion, it was shown that adolescents who have not made a vocational commitment do demonstrate a greater degree of ego identity diffusion, i.e., they have lower ego identity achievement and have lower self-concept, than adolescents who have made a vocational commitment.

Relationship of Expressed Vocational Choice and Measured Interests

A hypothesis which was not included in the formal objectives of this study, but which was felt necessary to investigate, was the relationship of expressed vocational choice and measured interests. It was hypothesized that an adolescent's stated vocational choice would be consistent with his measured interests.

The data, summarized in Table 21, support this hypothesis. There appears to be a positive relationship between self-expressed vocational choice and measured interests. Although the sample used to investigate this relationship was small and not randomly selected, the results are consistent with the literature (Holland, 1963; Holland & Lutz, 1967, 1968). It gives further strength to Holland's suggestion that we perhaps need to give more heed to the verbal intentions of adolescents regarding their occupational goals instead of discarding them as we have in the past and relying only on interest inventories.

Interrelationship Between Variables

Although it was expected that there should be a significant

relationship between ego identity and achievement on the basis of the significant and positive relationship between self-acceptance and ego identity and between self-acceptance and level of achievement, the results of this study did not fully substantiate this expectation. There was, however, a small ($r = .1908$) nonsignificant but positive relationship found between ego identity and achievement. It may be that GPA was an inadequate way of assessing achievement and perhaps a more standardized measure would have given different results. It will remain for future research to see if the results obtained here are what can be expected or are just peculiar to the sample used in the study.

The finding of a low nonsignificant correlation between ego identity and intelligence is contrary to the finding of Rasmussen (1964). This leads one to suspect that the sample in Rasmussen's study was a very selected group. The boys who volunteer for the Navy are different from the adolescent population as a whole. The integration of ego and self would be expected to proceed independent of the influences of intelligence and achievement. Although these two factors (intelligence and achievement) may contribute to the overall accomplishment of ego identity, they do not appear to be causal agents. It is the investigator's belief, that the low correlation between ego identity and achievement and intelligence is consistent with the formulations of Erikson (1959; 1963) concerning ego identity achievement.

There was a significant positive correlation between ego identity and self-concept, and between self-acceptance and ego identity as one might have expected, considering that each of these variables measures some aspect of maturity and congruence between interpersonal expectancies. This finding is consistent with Rasmussen's (1964) finding of a positive and predictive relationship between a measure of self-acceptance (one aspect of self-regard) and scores on the Ego Identity Scale. It is likewise consistent with the review of self-concept literature by Wylie (1961).

The finding of a negative correlation between ego identity and ideal self ($r = -.039$) is what might be expected if one reasons that the more ego identity one has achieved the less there is a need to pull oneself up to some desired level. The incongruence has been resolved and there is no need to wishfully look at oneself in a brighter light, values striven for have been or are being realized, i.e., one's expectations of self are congruent with the expectations of others.

Even though the correlation of adjustment with ego identity is nonsignificant, it is in the expected direction. Adjustment is a measure of maturity, bringing the views of self in congruence with the expectations of others or values striven for. Ego identity is also a measure of this type of phenomenon.

The nonsignificant correlation of intelligence with self-concept ($r = .094$), with self-acceptance ($r = .092$), with ideal self ($r = -.032$), and adjustment ($r = .00$) is what one might

expect in view of the fact that these measures are measures of the phenomenal self which is based on experience with the environment. Although intelligence or intellectual powers give one an edge in finding adequate coping patterns, it is not a necessary and sufficient condition for adequate adaptation to one's culture. This then is perhaps the reason for the low correlations.

The high positive and significant correlation ($r = .68$) of self-concept and self-acceptance is consistent with the findings reviewed by Wylie (1961). It also indicates that these two measures are measuring much the same thing. It is of interest that those adolescents who had expressed a choice as opposed to those undecided, show significant difference on the measure of self-concept, but not on the measure of self-acceptance. Since the two measures show a high correlation one would have expected similar results on both measures.

Self-concept and self-acceptance both show significant positive correlation with adjustment (r 's = .29 and .25 respectively). This is to be expected when one reasons that the higher a person scores on self-concept or self-acceptance, less discrepancies should be noted with their idealized goals, thus resulting in a higher adjustment (low discrepancy score equals high adjustment).

In the same light the significant negative correlation between self and self-acceptance ($r = -.81$), and between ideal self and adjustment ($r = -.16$) is a logical finding.

The higher the self-acceptance score the less need there is for an individual to close the gap between what he is and what he would like to be. Thus there is an inverse relationship, the higher the self-acceptance, the lower the ideal self. There is also an inverse relationship between ideal self and adjustment, the higher the ideal self score the lower the adjustment (higher discrepancy score between self and ideal self).

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1. These findings indicate that level of vocational commitment of senior high school boys tends to be dependent on length of time the choice is considered, the amount of feedback and discussion with parents concerning the choice, level of father's occupation, and the influence of significant others.

2. This investigation found that significant differences exist between adolescent senior high school boys who have expressed a vocational commitment and senior high school boys who are vocationally undecided on several of the variables considered in this study. These differences were determined by analysis of covariance and Duncan range test statistical techniques, and included the variables of (a) ego identity achievement and (b) self-concept. Senior high school boys who have expressed a vocational commitment have achieved higher ego identity and have higher self-concepts than those adolescent boys who are vocationally undecided.

3. Eric Erikson's contention that it is the adolescents' inability to settle on an occupational choice which disturbs them and results in a sense of identity diffusion is supported by the overall findings. Adolescents who have not made a vocational commitment do demonstrate a greater degree

of identity diffusion--lower ego identity achievement and lower self-concepts--than adolescents who have expressed a vocational commitment.

4. The verbalized vocational choice of adolescent senior high school boys is consistent with their measured interests.

5. There is a low (nonsignificant) positive correlation between ego identity and achievement.

6. Ego identity is nonsignificantly correlated with intelligence.

7. Ego identity, self-concept and self-acceptance are related measures dealing with level of maturity and ego integration in adolescence, and the intercorrelations of these variables are significant at the .01 level.

Recommendations

1. In light of these findings, it is recommended that attention be focused on aiding students with their vocational decisions earlier in their development. In doing so, we may alleviate many of the conflicts and uncertainty of late adolescence which culminate in what Erikson describes as identity diffusion.

2. It is recommended that counselors and educators take more note of adolescents' verbalized vocational goals. The findings indicate that these at the high school level are highly consistent with measured interests, the method which has been thought the only way really to assess later vocational choice.

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APPENDIXES

Appendix AVocational Choice Questionnaire

INSTRUCTIONS: Following are a number of questions which are related to your choosing a vocation. There are no right or wrong answers. Be sure and give YOUR OWN PERSONAL OPINION in answering each question. Please answer each question completely.

Name: _____ Age: _____ Grade: _____
(years) (months)

1. Circle the number which best represents your current feelings about your occupational choice. (Circle only one)

1. Undecided
2. Thinking about a choice
3. Made Tentative choice
4. Pretty sure of choice
5. Definitely sure of choice

If you circled either 3, 4, or 5 please write what your occupational choice is in the blank and then complete question #2 through #10.

My Choice is: _____

If you circled either 1 or 2 then please complete only questions #5 through #10.

2. How long have you been considering the occupation choice you listed above? (Circle the appropriate letter)

- A. 0-6 months
- B. 6-12 months
- C. 12-18 months
- D. 18-24 months
- E. 2 years or more

3. How important is getting good grades in your present course work to your intended occupational choice? (Circle the appropriate number)

1. Quite Unimportant
2. Rather Unimportant
3. Neither important nor unimportant
4. Fairly Important
5. Quite Important

4. In making the occupational choice you listed in Question #1 you probably considered a number of factors. Listed below are some things different people consider in making a choice. Most people consider more than one. Please check all those you have considered in making your decision.

- _____ Duties (Nature of the work).
- _____ Qualifications (Age, sex, special physical, mental, or personal qualifications).
- _____ Preparation (General education, special training, experience).
- _____ Employment Outlook (Are workers currently in demand, is there a need, etc.).
- _____ Method of Entering (How one gets into the job, etc).
- _____ Opportunities for Advancement.
- _____ Salary and other reward (Fringe benefits, etc.).
- _____ Conditions of Work.
- _____ Typical Place of Employment.
- _____ Organization (Unions, Technical and Professional Organizations and does one have to join etc.).

5. How much have you discussed with your parents the kind of work you should do when you get out of school? (Circle the appropriate number)

1. Very Little
2. Little
3. Some
4. Much
5. Very Much

6. What is your Father's chief occupation? (Circle only One)
1. Unskilled work - (laborer, farmhand, etc.)
 2. Semi-skilled work - (machine operator, riveter, laboratory tester, etc.)
 3. Skilled work - (toolmaker, electrician, plumber, designer, etc.)
 4. Clerical or Sales work.
 5. Managerial Work.
 6. Sub-Professional - (Accounting, Pharmacist, Draftsman, Surveyor, Technician, etc.)
 7. Scientific work - (Geologist, Physicist, Botanist, Engineer, Chemist, etc.)
 8. Professional - (Lawyer, Doctor, Psychologist, Professor, Teacher, etc.)
 9. Executive of large business or industry.
7. How do your parents feel on the subject of "Career Choice"? (Circle only One)
1. They have very strong feelings and outline what they want me to do.
 2. They are interested and help me outline what I want to do.
 3. They are interested, but do not try to influence me.
 4. They show little or no interest.
 5. They are actively opposed to what I want to do.
8. How do your parents feel about the marks you make in school? (Circle only One)
1. They are very pleased.
 2. They are satisfied but think I should do better.
 3. They do not care about marks as long as I do my best.
 4. They do not care about marks as long as I pass.
 5. They pay very little attention to my marks
9. Who had the greatest influence on your occupation choice?
1. Father
 2. Mother

3. Both parents equally
4. Siblings
5. Other relatives
6. Friends
7. Teachers, counselors, etc.
8. A church representative--minister, missionary, bishop, priest.
9. Person or persons in the profession or field.
10. No one.

10. What would you most like to be if you could be anything you wanted to be? (Fill in the blank or circle letter C.)

- A. Your 1st choice_____.
- B. Your 2nd choice_____.
- C. Don't know.

Appendix BEgo Identity Scale

Directions

The following pages contain a number of statements which are related to opinions and feelings about yourself and life in general. There are no right and wrong answers to these statements. Thus, you should give YOUR OWN personal opinion in answering the statements.

Read each statement, decide how you really feel about it, and mark your answer on the ANSWER SHEET. If the statement is one with which you AGREE or GENERALLY AGREE as it applies to you or what you believe, mark it AGREE on the answer sheet. If you DISAGREE or GENERALLY DISAGREE with the statement, mark it DISAGREE on the answer sheet.

It is important that you work right through the statements and answer each one. DON'T spend too much time on any one statement, but try to be as accurate as possible in deciding whether you generally agree or disagree with the statements. Several of the statements may sound the same, but don't worry about this. Answer each one as you come to it.

BE SURE TO PUT YOUR FULL NAME ON THE ANSWER SHEET

DO NOT MARK THIS BOOKLET

1. I seem to have regrets when I have to give up my pleasures right now for goals or things I want in the future.
2. No one seems to understand me.
3. I have a fear of being asked questions in class because of what other people will think if I don't know the answer.
4. Working is nothing more than a necessary evil that a person must put up with to eat.
5. It doesn't pay to worry much about decisions you have already made.
6. People are usually honest in dealing with each other.
7. From what others have told me, I feel I am a person who is very easy to talk to.
8. When given a job, I try never to get so tied up in what I am doing at the moment so as to lose sight of what comes next.
9. I work best when I know my work is going to be compared with the work of others.
10. I have no difficulty in avoiding people who may get me in trouble.
11. When I have to work, I usually get pretty bored no matter what the job is.
12. It doesn't worry me if I make a mistake in front of my friends.
13. The decisions I have made in the past have usually been the right ones.
14. Although I sometimes feel very strongly about things, I never show other people how I feel.
15. After I do something I usually worry about whether it was the right thing.
16. I am confident that I will be successful in life when I finally decide on a career.
17. It's best not to let other people know too much about your family or background if you can keep from it.

18. I really don't have any definite goals or plans for the future. I'm content to let the Navy decide what I should do.
19. I never enjoyed taking part in school clubs or student government activity.
20. If I am not careful people try to take advantage of me.
21. In general, people can be trusted.
22. It is very seldom that I find myself wishing I had a different face or body.
23. I would get along better in life if I were better looking.
24. At my age a man must make his own decisions, even though his parents might not agree with the things he does.
25. It's not hard to keep your mind on one thing if you really have to.
26. It seems as if I just can't decide what I really want to do in life.
27. I am always busy doing something, but I seem to accomplish less than other people even though they don't work as hard as I do.
28. When I'm in a group I find it hard to stand up for my ideas if I think other people won't agree with me.
29. I have at least one close friend with whom I can share almost all of my feelings and personal thoughts.
30. I do not feel that my looks and actions keep me from getting ahead in life.
31. Even when I do a good job in my work, other people don't seem to realize it or give me credit.
32. One of the hardest things for a young person to overcome is his family background.
33. The best part of my life is still ahead of me.
34. In a group I can usually stand up for what I think is right without being embarrassed.
35. I seem to have the knack or ability to make other people relax and enjoy themselves at a party.

36. I can't seem to say no when the group does something which I don't think is right.
37. Being without close friends is worse than having enemies.
38. I am not sure what I want to do as a life-time occupation, but I have some pretty definite plans and goals for the next few years.
39. It is easier to make friends with people you like if they don't know too much about your background.
40. I don't like sports or games where you always have to try and do better than the next guy.
41. A man who can be trusted is hard to find.
42. I believe that I must make my own decisions in important matters, as no one can live my life for me.
43. In order to be comfortable or feel at ease, a person must get along with others but he doesn't really need close friends.
44. I am proud of my family background.
45. I cannot keep my mind on one thing
46. It is a good idea to have some plan as to what has to be done next, no matter how much you have to do at the moment.
47. During the past few years I have taken little or no part in clubs, organized group activity, or sports.
48. I have found that people I work with frequently don't appreciate or seem to understand my abilities.
49. For some reason, it seems that I have never really gotten to know the people I have worked with, even though I liked them.
50. I am pretty content to be the way I am.
51. I can't stand to wait for things I really want.
52. A person is a lot happier if he doesn't get too close to others.
53. Even though I try, it is usually pretty hard for me to keep my mind on a task or job.

54. One of the good parts of being a teenager is getting together with a group which makes its own rules and does things as a group.
55. When it comes to working, I never do anything I can get out of.
56. My way of doing things is apt to be misunderstood by others.
57. A person who hasn't been a member of a well organized group or club at some time in his teens has missed a lot.
58. When I think about my future, I feel I have missed my best chances for making good.
59. I like to tackle a tough job as it gives me a lot of satisfaction to finish it.
60. I am always busy but it seems that I am usually spinning my wheels and never seem to get anywhere.
61. It is very important that your parents approve of everything you do.
62. It doesn't bother me when my friends find out that I can't do certain things as well as other people.
63. As a rule, I don't regret the decisions I make.
64. I feel pretty sure that I know what I want to do in the future and I have some definite goals.
65. I don't have any trouble concentrating on what I am doing.
66. A person can't be happy in a job where he is always competing against others.
67. I feel I have missed my opportunity to really be a success in life.
68. If a person wants something worthwhile he should be willing to wait for it.
69. At home, I enjoyed work or spare time activities where I had to compete against others.
70. I never make any important decisions without getting help or advice from my family.
71. It is better to say nothing in public than to take a chance on other people hearing you make a mistake.
72. I lose interest in things if I have to wait too long to get them.

Appendix CEgo Identity Scale Scoring Key

Answer Sheet

Name _____		School: _____			
Last		First		Middle	
Agree	Disagree	Agree	Disagree	Agree	Disagree
1. _____	<u> X </u>	25. <u> X </u>	_____	49. _____	<u> X </u>
2. _____	<u> X </u>	26. _____	<u> X </u>	50. <u> X </u>	_____
3. _____	<u> X </u>	27. _____	<u> X </u>	51. _____	<u> X </u>
4. _____	<u> X </u>	28. _____	<u> X </u>	52. _____	<u> X </u>
5. <u> X </u>	_____	29. <u> X </u>	_____	53. _____	<u> X </u>
6. <u> X </u>	_____	30. <u> X </u>	_____	54. <u> X </u>	_____
7. <u> X </u>	_____	31. _____	<u> X </u>	55. _____	<u> X </u>
8. <u> X </u>	_____	32. _____	<u> X </u>	56. _____	<u> X </u>
9. <u> X </u>	_____	33. <u> X </u>	_____	57. <u> X </u>	_____
10. <u> X </u>	_____	34. <u> X </u>	_____	58. _____	<u> X </u>
11. _____	<u> X </u>	35. <u> X </u>	_____	59. <u> X </u>	_____
12. <u> X </u>	_____	36. _____	<u> X </u>	60. _____	<u> X </u>
13. <u> X </u>	_____	37. <u> X </u>	_____	61. _____	<u> X </u>
14. _____	<u> X </u>	38. <u> X </u>	_____	62. <u> X </u>	_____
15. _____	<u> X </u>	39. _____	<u> X </u>	63. <u> X </u>	_____
16. <u> X </u>	_____	40. _____	<u> X </u>	64. <u> X </u>	_____
17. _____	<u> X </u>	41. _____	<u> X </u>	65. <u> X </u>	_____
18. _____	<u> X </u>	42. <u> X </u>	_____	66. _____	<u> X </u>
19. _____	<u> X </u>	43. _____	<u> X </u>	67. _____	<u> X </u>
20. _____	<u> X </u>	44. <u> X </u>	_____	68. <u> X </u>	_____
21. <u> X </u>	_____	45. _____	<u> X </u>	69. <u> X </u>	_____
22. <u> X </u>	_____	46. <u> X </u>	_____	70. _____	<u> X </u>
23. _____	<u> X </u>	47. _____	<u> X </u>	71. _____	<u> X </u>
24. <u> X </u>	_____	48. _____	<u> X </u>	72. _____	<u> X </u>

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