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COCHRAN, John Robert, 1937-
THE RELATIONSHIP OF THE SELF-CONCEPT TO SCHOOL MOTIVATION AND LEVEL OF OCCUPATIONAL ASPIRATION.

The Ohio State University, Ph.D., 1968
Education, guidance and counseling

University Microfilms, Inc., Ann Arbor, Michigan
THE RELATIONSHIP OF THE SELF-CONCEPT TO
SCHOOL MOTIVATION AND LEVEL OF
OCCUPATIONAL ASPIRATION

DISSERTATION
Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
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ACKNOWLEDGMENTS

I would like to express my appreciation to the administration, faculty, and staff of Hudson High School in Hudson, Ohio, for their assistance with this research. I would especially like to thank Mr. Lloyd Benham, Mr. George Rosselot, Mr. Richard Fawcett, Mrs. Delores Gladden, and Miss Pam Thomas for their cooperation and good humor in working with me for the past three years. My special thanks to Mrs. Mary Pace, Supervisor of the Vocational Program, for all of the patience, time, and hard work which she has so willingly contributed to this research. I would also like to thank Dr. Robert Bills, Dr. Jack Frymier, and Dr. Arch Haller for their permission to modify the tests which they have developed and to reproduce the tests and related materials in this dissertation.

To my adviser, Dr. Herman J. Peters, the man who has been the model for my professional development and the significant person in my educational experience, my deepest gratitude. My thanks to my parents and my wife's parents for their confidence and understanding, and for the fine personal example which they have provided. Finally, my deepest love and appreciation to my wife for her encouragement, patience, assistance, and hard work.
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CHAPTER I

THE PROBLEM

Introduction

Modern education in the United States is based on the worth of the individual. Our educational system, consequently, has a responsibility to provide for each individual so that he might achieve to his capacity and become a contributing member of society. The primary goal in such a system is to provide equality of opportunity. As John Gardner (1960) has stated in Goals for Americans:

Our devotion to equality does not ignore the fact that individuals differ greatly in their talents and motivations. It simply asserts that each should be enabled to develop to the full, in his own style and to his own limit. Each is worthy of respect as a human being. This means that there must be diverse programs within the educational system to take care of the diversity of individuals; and that each of these programs should be accorded respect and stature. (p. 81)

In addition to the humanitarian reasons for developing an educational system which meets the educational needs of all students, a more selfish but equally important factor, that of manpower needs, must be considered. Herriott (1963) has said "Human talent is our greatest national resource. Its conservation and development should be, therefore, a primary concern of everyone. When human talent is wasted, everyone is deprived, when it is rightly developed, everyone benefits." (p. 157)
It is these two considerations, equality of educational opportunity and the nation's manpower needs, which have become prime motivators of educational program development in the 1960's. These goals have led to many changes in contemporary education. Increased attention has been paid to those who previously derived least from our educational system. Programs for the culturally "disadvantaged" or "different" have been instigated. Such programs have attempted to provide needed academic and vocational skills for students who previously received little benefit from the school. In the past, most of these students either dropped out of school or graduated to find they had no salable skills and had to be content with being unemployed or performing menial unskilled jobs.

Many types of new programs have been initiated to "reach" this group of students who have not profited in the past from traditional approaches. Schreiber (1964) lists six categories of new programs:

(1) School-related adult educational programs for the employed and the unemployed;
(2) Job-upgrading programs;
(3) Work-study programs;
(4) Operation return;
(5) Higher Horizons and Compensatory education; and,
(6) Kindergarten and early childhood. (p. 6)

To the list proposed by Schreiber, I would add vocational education, an area that is not new, but is receiving increased attention. Schreiber feels that all the new programs have been concerned with the common assumption that attitudes and motivation of individuals can be changed by appropriate experiences.
If we are to assume that attitudes and motivations can be changed through appropriate experiences, then it is essential that the most pertinent attitudes for success in learning be identified and the complex interrelationships between them be better understood. If this is done, then appropriate experiences may be provided for those who have not profited from education in the past.

One factor which is commonly associated with school success or failure is the individual's self-concept. In fact, Combs and Snygg (1959) feel an adequate self-concept is so basic that "From birth to death the maintenance of the phenomenal self is the most pressing, the most crucial, if not the only task of existence." (p.45) Frymier (1965) states that "the way students view themselves influences their motivation toward school." (p. 125) Additional support for such a position is given by Reed (1962). He claims that "The self image or one's perception of himself is a most significant factor in the learning process." (p. 248) In addition, he states "Academic achievement is a function of the pupil's perceptions and these perceptions are, in turn, determined by the degree which permits him to accept himself, others, and the situation." (p. 249)

In addition to the assumption that an individual's self-concept is related to his motivation toward school, Farquhar and Payne (1963) have suggested that some relationship may exist between academic and occupational motivation. Haller (1963) contends that motivation as evidenced by n-achievement and level of occupational aspiration should have a moderate positive correlation with each other.
If we are to successfully educate all students, more knowledge is needed about the relationships of the self-concept, school motivation, and level of occupational aspiration of students. This study will explore some aspects of this relationship.

**Purpose of the Study**

In order to improve education we must learn more about the influence of the self-concept of students upon their motivation toward school and upon their level of occupational aspiration. This paper will attempt to answer four major questions about this relationship.

1. Does a significant relationship exist between certain aspects of the self-concept (i.e., the self, self-acceptance, and ideal self) and school motivation?
2. Does a significant relationship exist between certain aspects of the self-concept (i.e., the self, self-acceptance, and ideal self) and level of occupational aspiration?
3. Does a significant relationship exist between school motivation and level of occupational aspiration?
4. Is there a significant difference in the above relationships between various subgroups of boys at different grade levels and in different curricula?

**Significance of the Problem**

The study of this problem has significance at two levels: (1) theory testing, and (2) practical application. In the first area, that of theory testing, evidence from this study helps test the
phenomenal theory of self-concept, and the relationship of the self-concept to school motivation and level of occupational aspiration.

This study relates to the theoretical formulations of a number of men. Combs and Snygg (1959) feel that the enhancement of the phenomenological self is the basis for all action. Holland (1959) carries this theory a step further and suggests that the level of occupational choice within a class of occupations is, in part, a function of self evaluation. He feels that self-concept measures might be used in exploring the level of occupational choice.

In Field, Kehas, and Tiedeman's (1963) formulation of occupational choice, one of the primary factors of choice is thought to be the individual's current notion of what he is like. Farquhar and Payne (1963) feel that there is a relationship between academic and occupational motivation and suggest "A link is needed between academic and occupational motivational theory to test empirically the assumption that there is a relationship between academic and occupational motivation." (p. 245) Finally, Frymier (b) expresses a conception of school motivation in which the individual's attitude toward himself is one of the major components.

In addition to the usefulness of the study in contributing to the above theoretical formulations, it also has several practical applications. If we are to achieve the goals of educating each to his potential and of meeting our future manpower needs, then we need to learn more about the non-intellective factors which contribute to the students' motivation for school learning and later occupational selection. It is commonly recognized that a great waste of human
potential is taking place because many people who are intellectually capable are not profiting from their experiences in the educational system. As Morse (1964) says,

Whatever else we have done, we have communicated a sense of personal failure to many of our pupils. In general, the longer we have them, the less favorable things seem to be. ... The fact remains, if we care about the pupil's self-regard, we have much work to do. We need to know more about the nature of our pupils through the years. (p. 27)

This study may help suggest possible techniques for improving school motivation and for developing realistic occupational aspiration among pupils. It should also help determine which of several aspects of the self-concept are most related to school motivation and occupational aspiration.

Some light is also shed upon the problem of whether students who are college-oriented and those who are not have common or unique conceptions of self, motivations toward school, and occupational aspiration levels. Finally, this study contributes some evidence about the nature of changes in self-conceptions, school motivation, and occupational aspiration with progress through school. Such evidence should also be helpful in developing teaching techniques and curricula suitable for those who are currently not receiving maximum benefit from their educational experience. Next, let us look at the terms to be used in this study.
Definition of Terms

**Vocational boys**
Boys enrolled in the vocational curriculum at Hudson High School. This curriculum stresses the development of healthy work attitudes and salable job skills.

**College Preparatory boys**
Boys enrolled in the college preparatory curriculum at Hudson High School. This curriculum stresses academic preparation for college.

**Self**
The individual as he is perceived by himself. In this study, the term is operationally defined as the score on Section I of the *Index of Adjustment and Values*.

**Self-Concept**
The way an individual perceives himself. This term is frequently used interchangeably with "self".

**Self-Esteem**
An individual's regard for himself.

**Self-Acceptance**
The degree to which one likes or dislikes being as he is. Self-acceptance is operationally defined here as the score on Section II of the *Index of Adjustment and Values*.

**Ideal Self**
How a person says he would ideally like to be. This term is defined operationally as the score on Section III of the *Index of Adjustment and Values*. 
<table>
<thead>
<tr>
<th><strong>Self-Satisfaction</strong></th>
<th>The degree to which a person is content with himself as he is. In this paper, self-satisfaction refers to the discrepancy in scores between the ideal self (Section III) and self (Section I) scores on the <strong>Index of Adjustment and Values</strong>.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level of Occupational Aspiration</strong></td>
<td>The area on the occupational prestige hierarchy which an individual views as his goal. (Haller, 1963) In this study, this is determined by an individual's score on the Haller <strong>Occupational Aspiration Scale</strong> (OAS).</td>
</tr>
<tr>
<td><strong>Motivation Toward School</strong></td>
<td>&quot;A student's desire to do good work in school.&quot; (Frymier, 1967, p. 2) In this study, school motivation is operationally defined as the student's score on the <strong>JIM Scale</strong>.</td>
</tr>
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</table>

**Conceptual Framework**

The conceptual framework for this study is based upon the phenomenological approach to personality as espoused by Combs and Snygg (1959). They feel that the most important task of existence is the maintenance and enhancement of the self. Their theory suggests that a person is never unmotivated, but his goals are sometimes not understood by other persons. In addition, Combs and Snygg feel that, in order to change behavior, it is necessary for people to change the
way they see themselves. They define the person with an adequate personality as one who sees himself in essentially positive ways, can accept himself and others, and is strongly identified with others. According to Combs and Snygg, the time spent in school is of vital importance in the development of the phenomenal self; and in most school situations, the chief motivator is the need for self-esteem and personal adequacy.

Bills [undated (a)] elaborates and interprets phenomenological theory as he used it in developing his *Index of Adjustment and Values*. It is the approach of Bills below, combined with that of Combs and Snygg, which form the conceptual framework for this research.

In brief, this theory (perceptual theory) holds that behavior is consistent with a behavior's perceptions about the world in which he lives. His perceptions are influenced by several variables including: his needs and values, the presence or absence of threat, opportunities for experience with stimuli, the perceiver's physiological state, and his beliefs about himself and other people. These latter beliefs include factors such as self-concept, concept of the ideal self, acceptance of self and beliefs about other people's acceptance of themselves.

The theory also states that behavior is the effort of a person to maintain or to enhance his self-organization. Stated in an oversimplified manner this implies, in part, that a person has information relative to his present self-organization (self-concept is a part of this self-organization) and a view of himself as he wishes to be (concept of his ideal self). A significant portion of his behavior is aimed at bridging this gap. Furthermore, his self-satisfaction is directly related to the difference he perceives between his self-concept and his concept of his ideal self. **Personal maladjustment exists when the discrepancy between these two concepts is sufficiently large as to cause unhappiness.** *(pp. 5-6)*

It follows from the principle of homeostasis that the less satisfied the individual is with himself the more likely he is to try
to reduce the gap between the way he sees himself and the way he'd like to be. The individual's attempt to reduce this gap might take the form of greater motivation toward school in order to achieve at a more self-enhancing level. School achievement is a fleeting thing, however, and eventually is partially replaced by occupational status for men in our society. It is occupational prestige which plays a large part in adult male adequacy and status (Kahl, 1957) in our society. Since occupational planning is encouraged in our society during the high school years, and even earlier, it follows that level of occupational aspiration is another manifestation of the striving for personal adequacy.

Limitations

The following limitations are inherent in this study:

(1) The study will concern itself only with boys since a valid test of occupational aspiration is not available for girls.

(2) The subjects for this research come from only one high school which is in a suburban area. Therefore, few students who might be classed as "disadvantaged" are included in the study.

(3) Information on the effects of these variables at different grade levels is limited to cross-sectional rather than longitudinal comparisons.
Summary

In this chapter the purpose of the study, the significance of the problem, the definition of terms, the conceptual framework, and the limitations of the study have been discussed. In the next chapter, the relevant literature will be reviewed.
CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter will first discuss theories and research which define the general concepts of self-concept, school motivation, and level of occupational aspiration. After the above three terms are defined, literature relating the self-concept to school motivation will be reviewed. Next, research dealing with the relationship of self-concept to level of occupational aspiration will be treated. Literature dealing with the interaction of school motivation and level of occupational aspiration will be the next topic of discussion. After the above terms and their interrelationships have been discussed, instruments used to measure self-concept, school motivation, and level of occupational aspiration will be reviewed.

Concepts

The Self-Concept

The self-concept is being used increasingly in the literature as a basis for explaining human behavior. Contemporary personality theories, especially phenomenology and existentialism, rely heavily upon the concept of self to explain personality.

One of the earlier formulations of the self-concept was that of George Mead (1943). He felt that the self developed as the result
of the social experience of the individual, and that the individual could experience himself only indirectly from the standpoint of his social group. In addition, he thought that there was a definite distinction between the self and the body. More recent phenomenological theories see the self as much more encompassing than Mead did.

Perhaps the most comprehensive theory of the self-concept to date, and the first to have a significant impact, is the one originally espoused by Snygg and Combs in 1949. In their revised book (Combs & Snygg, 1959) they say that the "... phenomenal self includes not only a person's physical self but everything he experiences as 'me' at that instant." (p. 47) They continue: "By concepts of self we mean those more or less discrete perceptions of self which the individual regards as part or characteristic of his being. They include all perceptions the individual has differentiated as descriptions of the self he calls I or me." (p. 124) They feel that during one's lifetime the maintenance and enhancement of the phenomenal self is the most important task of existence. In addition, they conceive of man as never unmotivated, but as sometimes having goals which others do not understand.

Combs and Snygg feel that the goal of education is the production of adequate personalities i.e., a person who (1) "perceives himself in essentially positive ways, (2) is open to his experience and capable of accepting self and others, and (3) is strongly and broadly identified with others." (p. 366) They add that "Since the self-concept is a function of experience, what happens to students during their time spent in the educational system must be of vital
importance in the development of the phenomenal self." (p. 377) The authors feel that "(1) In most school room situations the chief motive of the children's behavior and learning is their need for self-esteem and a feeling of personal adequacy. (2) Activities and techniques which result in success and an increased feeling of self-esteem will be repeated; activities which result in failure or humiliation will be avoided." (p. 381) Thus, in the view of Combs and Snygg, the maintenance of the self-concept is the basis for behavior; and school, because of the nature and extent of the educational experience, is a prime determiner of the self-concept.

Carl Rogers (1951) developed a theory similar to that of Snygg and Combs. His theory was formed to provide a framework for counseling. In his formulation, Rogers explains that "The organism reacts to the field as it is experienced and perceived. The perceptual field is, for the individual, 'reality.'" (p. 484) The individual reacts as an organized whole to such experiences; in addition, the individual has a basic striving to actualize, maintain, and enhance himself. As Rogers sees it, the self gradually develops from the evaluational interaction with others. Behavior which is usually adopted is that which is consistent with the individual's concept of self. Rogers feels that an individual is maladjusted when he will not integrate certain significant experiences into his self structure. In such instances, Rogers thinks that it is possible for a person to later integrate such experiences if he is placed in a completely non-threatening situation.
A more existential view of the self is expressed by Moustakas (1956) who states "The self is itself alone existing as a totality and constantly emerging. It can be understood only as unique personal experience." (p. 3) He feels that "True growth, actualization of one's potential, occurs in a setting where the person is felt and experienced as sheer personal being." (p. 4) Moustakas agrees with Allport, Rogers, and Combs and Snygg that the individual has a need to maintain his real-self and to become self-actualized; and that he will resist attempts to change his perception of himself. Largely in agreement with Combs and Snygg, Moustakas believes that the best educational atmosphere for significant learning is one in which the threat to the self of the learner is at a minimum, the uniqueness of the individual is respected, and the individual may explore things of meaning and interest to him.

How does the self-concept develop? In general, the development of the self-concept is attributed to interaction with others. Kinch's (1963) theory of the development of the self-concept is that "the individual's conception of himself emerges from social interaction, and, in turn, guides or influences the behavior of that individual. (1) The individual's self-concept is based on his perception of the way others are responding to him. (2) The individual's self-concept functions to direct his behavior." (pp. 481-2)

Lee and Lee (1959) offer a first person narrative of how the self-concept develops. They explain that it results from the development of personal-social goals.
As a person I begin to be aware of what I want to be. In other words, I have personal goals, immediate goals, and later more long-term goals. Now as I, with my personal goals, live in the world of other people, I run into what others think I ought to be. These might be termed personal-social goals, or culturally conditioned goals. Now as I see myself as a person in light of my socioculturally conditioned goals, I arrive at my self-concept. This is as I see myself in the light of what I think others think I ought to be. To what extent am I the kind of person I want to be, able to do things in ways that I feel important, and to what extent do I feel I fit the expectations of others? (p. 29)

Newcomb (1950) believes that groups provide the norms for individuals' perceptions, and that these norms must be consistent.

Groups thus provide standards or norms in terms of which individual perceptions can be made. Few, if any, perceptions are made without some sort of context, and perceptions cannot be made dependently if the context is undependable from moment to moment. Because one's self is important... dependable standards in terms of which to make self perceptions are particularly needed. (p. 4)

Thompson (1959) is in agreement that society provides a sounding board. He feels that a crucial period occurs when the child begins to identify with significant others.

Of particular importance is the point at which he begins to identify with others, to attribute purpose and intention to the acts of others... most relevant are appraisals by significant persons... If the child feels that he is liked, that he is approved by them, if he feels that he is given the right to be himself, to try himself out, and the freedom to make mistakes, then he will find it relatively easy to feel the same about himself. (p. 403)

In a study of the development of the ideal self-concept, Havighurst (1946) supported the notion that the self-concept develops as a result of interaction with others. In his research, Havighurst studied the development of the ideal self-concept during childhood and adolescence by asking boys and girls to write a brief essay on "The person I would like to be." He found that the ideal
self-concept begins in childhood as an identification with a parental figure. During middle childhood and early adolescence it moves through a stage of romanticism and glamour, and culminates in late adolescence as a composite of desirable characteristics which may be symbolized by a visible young adult or may be simply an imaginary figure.

The work of Carlson (1958) supports the research of Havighurst. Carlson found that the child's self-acceptance is positively related to peer status. In addition, she found that parental attitudes do, in part, determine aspects of the child's self-concept and his social status. In a later longitudinal study (1965) she found that self-esteem was a relatively stable dimension of the self which is independent of sex role.

Now that we have examined some general theories of the development of the self-concept, let us look at some specific aspects of it. One author who attempted to discover the specific factors which make up self-concept was Jersild. Jersild's 1952 publication, *In Search of Self*, cites empirical evidence demonstrating various aspects of self. He analyzed nearly three thousand compositions written by young people from elementary school through college on the topics "What I like about myself"; and "What I dislike about myself." This was supplemented with personal interviews and group discussions with high school students. He delineated the following aspects of self, listed here in ascending order of psychological maturity: (1) Physical characteristics including general appearance; (2) Clothing, grooming, and make-up; (3) Health and physical
condition; (4) Material possessions and ownership; (5) Attitudes toward animals and pets; (6) Home and family relationships; (7) Participation in and ability at sports, games and hobbies; (8) Ability at and attitudes toward school and school work; (9) Intellectual status; (10) Special talents and abilities or interests; (11) Personality traits; (12) Social attitudes and relationships; (13) Religious ideas, interests, beliefs, and practices; (14) Management of practical affairs. (pp. 64-87)

In addition, he found that younger children described themselves more in terms of external criteria such as physical characteristics and grooming, while the older ones described themselves in terms of inner resources and quality of relationships with other people. Generally speaking, however, most of the categories of self description prominent at any one age level were prominent at other age levels.

Strang (1957) in *The Adolescent Views Himself* applied similar procedures to an adolescent group. She obtained unstructured compositions on topics such as "The kind of person I think I am," "The kind of person others think I am," and "The kind of person I would like to be." From this study, Strang postulated four main dimensions of the self: (1) The "basic self-concept," or the individual's perception of his abilities and his status and roles in the outer world. It is his concept of the person he thinks he is. (2) The "transitory perception of self," or the self perception which the individual holds at the present time. (3) The "social self," the self as the person thinks others see it. (4) The "ideal self." This is the kind of
person the individual hopes to be or would like to be. (pp. 67-132)

It is evident from these studies that the self may be viewed in a number of different ways. Later in this chapter, some other conceptualizations will be discussed.

In summary, the self-concept occupies a central position in the explanation of human behavior. Different dimensions of self have been hypothesized by various writers and, at the present time, there seems to be no general agreement on exactly what dimensions constitute the self-concept. In addition, authors agree that the youngster's early years are instrumental in the development of the self-concept; and that the self-concept is largely a product of the socialization process. Finally, theoreticians feel that the school plays a very important part in the development of the self-concept. Before discussing specific aspects of the self-concept which relate to this study, let us examine the two other key concepts to be dealt with in this research i.e., school motivation and level of occupational aspiration. First, we will discuss school motivation.

School Motivation

Motivation, as a general term "refers to all those inner striving conditions variously described as wishes, desires, needs, and the like . . . . Formally, then, a motive is an inner state that energizes, activates, or moves, and that directs or channels behavior toward goals." (Berelson & Steiner, 1964, pp. 239-40)

In an attempt to develop a theory of behavior, various motives based upon physiological and psychological, primary and secondary needs, have been attributed to people.
A great many men such as Freud, Jung, Adler, Allport, Sullivan, Snygg and Combs, to name but a few, have developed theories to explain human personality and behavior. A key concept dealt with in each of these theories is motivation. Hall and Lindzey (1957) conclude that "It is clear that personality theorists have customarily assigned a crucial role to the motivational process." (p. 5)

One such theory which attempts to integrate physiological and psychological needs into a comprehensive theory of motivation and personality is that of Maslow (1954). He feels that there is a definite hierarchy of needs, and that the needs at each level must be met before the individual is concerned with satisfying his needs at the next level. Human needs, as he sees them, from lowest to highest order are physiological, safety, love, self-esteem, and self-actualization. (pp. 80-106)

In contrast to the rather short list of needs put forth by Maslow, Murray (1939) lists twenty-eight psychogenic needs. The one which is most pertinent here is his need, n-achievement. He defines n-achievement as "To overcome obstacles, to exercise power, to strive to do something difficult as well and as quickly as possible." (p. 80)

McClelland (1953) has done extensive research utilizing the n-achievement concept. He defines achievement motivation as "(1) competition with a standard of excellence, (2) unique accomplishment, and (3) long-term involvement." (p. 327)

From the general concept of motivation and the more specialized concept of n-achievement, a conceptual framework for dealing
with motivation toward school has been developed. Frymier has been a leading researcher in the attempt to assess school motivation. He defines school motivation as the desire to do well in school.

Frymier assumes that motivation manifests itself through an individual's personality structure, his attitudinal structure, and his value structure. Additional assumptions which Frymier (1967) utilized in developing his concept of school motivation are as follows:

Throughout this research motivation was assumed to be something which came from within the individual rather than something which came from without. It was further assumed that motivation toward school would include such areas as an individual's attitude toward school, the extent to which he valued education, his feelings for other people, the value which he attributed to ideas, his concern with material things, his personal determination, and his attitude toward himself. (p. 3)

From the above concept of motivation, Frymier developed the JIM Scale which will be discussed later.

In summary, motivation is generally regarded as an inner state that moves behavior toward goals. The concept of n-achievement relates to the striving to do something as well and as quickly as possible. The specific motivational concept of concern to this paper is that of motivation toward school or the desire to do well in school. Let us now examine the concept of the level of occupational aspiration.

Level of Occupational Aspiration

The term level of occupational aspiration is a specialized use of the more general term level of aspiration. According to Gardner (1940), the term was originated with Lewin and his students
and was popularized in this country with the publishing in 1935 of Lewin's book, *Dynamic Theory of Personality*.

In summarizing research on the concept level of aspiration from its introduction by Lewin to the time of the writing of the article, Gardner suggests that the original use of the term was gradually changed.

Hoppe thought of the level of aspiration as the totality of certain highly subjective aims. Later investigation rejected his methods for getting at these aims, and set up more precise and objective methods. These methods were assumed by Jucknat and Frank to be getting at the level of aspiration as originally defined but actually they were measuring precisely as much as the individual was willing to make public concerning his aims and no more. (p. 64)

Gardner concludes his article with what he considers the only acceptable meaning of level of aspiration.

There is, then, one and only one meaning to the term level of aspiration: it can only refer to a quantitative indication which an individual makes concerning his future performance in an activity. (p. 66)

Deutsch (1954), in reviewing the concept of level of aspiration as used by Lewin, defines the term in a slightly different manner from Gardner. Deutsch says of the term level of aspiration:

The level of aspiration may be defined as the degree of difficulty of the goal toward which the person is striving. The concept of level of aspiration is relevant only when there is a perceived range of difficulty in the attainment of possible goals and there is variation in valence among the goals along the range of difficulty. (p. 208)

In 1948, Escalona reviewed the findings of previous level of aspiration experiments.
The main findings and conclusions of previous level of aspiration studies may be summarized as follows: In order for a person to experience subjective success or failure in relation to a given achievement, the following conditions must be met: (1) The person must ascribe the performance to himself as a person. If he feels that he was helped or hindered by factors beyond his control he will not experience psychological success or failure. (2) The task must be neither too easy nor too difficult, but must lie within what has been called the "border zone of ability." By this is meant a range of difficulty where accomplishment is neither taken for granted, nor held to be impossible by the subject. (3) It has been found that whether a subject experiences success or failure in relation to a given performance, depends not on the objective excellence of the performance, but upon the relationship between what the person accomplished and what he had attempted to achieve; in other words, upon his level of performance and his level of aspiration. (4) In a situation where a task may be solved on a number of different levels of varying degrees of difficulty, and where a person is allowed as many trials as he desires to undertake, the level of aspiration is found to shift in a systematic manner in reaction to the occurrence of success or failure on preceding trials. Characteristically, the level of aspiration is raised after success and lowered after failure. (p. 4)

Haller (1963) synthesizes the work of Lurie (1939), Gardner (1940), Lewin et al (1944), Irwin (1951), and Deutsch (1954) on the general concept of level of aspiration. Haller concludes:

At perhaps the most fundamental level, the term indicates that one or more persons are oriented toward a goal. But it is more than this, in that both the goal and the person's orientations to it are complex. (1) The person's goal is a selection of one among the alternative behavior levels that are possible with respect to an object. These alternative behavior levels must vary in the degree to which they are difficult to achieve. That is the alternatives are ranked in a continuum of difficulty. (2) The person's orientation is variable in two ways, one of which has received considerable attention in the literature, and the other has been to a large extent ignored. (2a) The person's orientation is variable in that its central tendency may lie at any point or limited range of points along the continuum of difficulty. The central tendency of the person's orientation is the point or limited range of points which has the highest valence for him. This is the person's level of aspiration. The term differential level of aspiration logically implies variation in the point of valence when it is estimated at
different times on the same person, or at the same time or different times on different persons . . . (2b) The person's orientation is variable in a second way. The central tendency may vary in amount of dispersion, the degree to which it is concentrated at a single point, or varies over a range of points on the continuum of difficulty. (pp. 7-8)

After discussing the general concept of level of aspiration, Haller goes on to differentiate between the general concept and the more specialized instance of level of occupational aspiration (LOA). He states, "It differs from the general concept only in that it takes as its object the occupational hierarchy, and that the continuum of difficulty consists of the various levels along the hierarchy." (p. 9)

In summary, the term level of occupational aspiration, as defined by Haller, is a special instance of the concept of level of aspiration. Level of aspiration is defined as orientation toward a goal, and level of occupational aspiration indicates orientation toward an occupational goal. Let us now examine the ways in which the self-concept relates to the concepts of school motivation and level of occupational aspiration.

Relationships
Self-Concept Related to School Motivation

The self-concept is a prime factor in the learning process. How one regards himself is a major determinant of what he will learn.

Landsman (1962) contends that what one learns depends upon the degree to which the learner perceives the material as contributing to his positive self-feelings. Reed (1962) states that "The self image or one's perception of himself is a most significant factor in the learning process." (p. 248) Wylie (1961) comments
that "It may be reasonable to assume that general self-regard will correlate with achievement." (p. 248)

Brookover and Gottlieb (1964) hypothesize that the child develops a self-concept of ability which functionally limits his achievement.

We postulate that the child acquires, by taking the role of the other, a perception of his own ability as a learner of the various types of skills and subjects which constitute the school curriculum. If the child perceives that he is unable to learn mathematics or some other area of behavior this self-concept of his ability becomes the functionally limiting factor of his school achievement. (p. 469)

O'Hara (1966) hypothesized that a student's vocational self-concepts would relate to achievement. He had ninth and twelfth grade boys rate themselves on several vocationally related instruments and then had them take the tests. He found that students' predictions of their scores on the instruments were significantly related to their actual scores. In addition, he found that the predictions of the twelfth graders were significantly more accurate than those of the ninth graders.

Several studies have tried to assess the role of the teacher and the school environment in determining the student's self-concept and achievement. Davidson and Lang (1960) studied the relationship of children's perceptions of their teacher's feelings toward them to self-perception, academic achievement, and classroom behavior. They found that the attitude of the teacher was closely related with that of the student.

(1) The children's perception of their teacher's feelings toward them correlated positively and significantly with self-perception. The child with the more favorable self
image was the one who more likely than not perceived his teacher's feelings toward him more favorably. (2) The more positive the children's perception of their teacher's feelings, the better was their academic achievement and the more desirable their classroom behavior as rated by the teachers. (p. 116)

Williams and Cole (1968) hypothesized that "... a child's conception of school would be related to his conception of himself, and thus, might be construed as an extension of his self-concept." (p. 478) They administered the Tennessee Self-Concept Scale to eighty sixth graders. Self-concept was found to correlate significantly with conception of school, social status at school, emotional adjustment, mental ability, reading achievement, and mathematical achievement. In their concluding statement, they suggest a strong relationship between a child's performance at school and his self-concept.

Teachers are often held responsible for poor motivation in their classes. In contrast, perhaps the child's conception of school is primarily an extension of his conception of himself already well-established prior to entering school. (p. 480)

Morse (1964) contends that, contrary to what Williams and Cole suggest, the school actually contributes significantly to lowering the child's opinion of himself. He measured the responses of over six hundred pupils in grades three through eleven on two measures of the self-concept, the Osgood Semantic Differential and the Coopersmith Self-Esteem Inventory. Some of his conclusions were:

The general impression one gets is that for the young child, school is a secure place with regard to mental health, but as he grows older this confidence diminishes. (p. 26) . . .
While neither the self-picture nor the school self-esteem is pleasant, the school self appears to be the more negative. Whatever else we have done, we have communicated a sense of personal failure to many of our pupils. In general, the longer we have them, the less favorable things seem to be. (p. 27)

A major area of research dealing with the self-concept and its relationship to school is that of the self-concept and school achievement. A few of these studies deal with the self-concept and achievement without regard to the child's intelligence.

Representative of this approach is a study by Dyson (1967) of seventh grade students to determine differences in the self-concept of students in heterogeneous versus homogeneous groups. He administered the Index of Adjustment and Values as a global measure of self-concept and the Word Rating List as an indication of academic self-concept. Some of the conclusions of Dyson's study were:

1. Boys and girls do not report significantly different patterns of acceptance of self or academic self-concepts.

5. High achievers do not report significantly different patterns of acceptance of self from those of low achievers either in heterogeneous or homogeneous grouping situations.

6. High achievers do report significantly different patterns of academic self-concept from low achievers in both heterogeneous and homogeneous grouping situations.

7. Since high and low achievers were identified on the basis of grade-point averages, it can be concluded that success in school as indexed by report card grades is significantly related to reports of academic self-concept. Those who are successful in achieving higher grades report significantly more positive self-concepts while those who are unsuccessful in achieving good school grades report significantly less positive self-concepts. This is true regardless of the type of grouping experienced in the school.
(8) Ability grouping alone does not appear to have a significant effect on either reports of acceptance of self or academic self-concept. (p. 405)

A more common type of study is one which attempts to determine the relationship of self-concept to school achievement when ability is controlled. Since, in this kind of research, the ability factor is controlled, those factors which are found to differentiate between high and low achievers might be considered as motivational factors. Studies of over and under-achievers are examples of this type of study.

Combs (1964) in a study of under-achievers found that they saw themselves as less adequate and less acceptable to others. Under-achievers studied by Frymier (1959) saw themselves as "impatient, honest, and friendly but not as popular, intelligent, dependable, unkind, or unhappy." (p. 122)

Shaw, Edson, and Bell (1960) found "that bright under-achieving male high school students had more negative self-concepts than students who were equally bright, but achieving." (p. 196) In a more recent study attempting to verify the above research Shaw and Alves (1963) conducted a second study. They administered the Bills' Index of Adjustment and Values to 129 students identified as over or under-achievers based on grade-point-average in relation to intelligence. Results of this research confirmed the results of the earlier study.

Bay (1961), in another study of the self-concepts of over and under-achievers, matched 50 bright junior high achievers with 50 bright under-achievers. He gave both groups the self-acceptance
section of the Bills' Index of Adjustment and Values. Bay concluded:

(1) There is a significant difference favoring the achievers in the self-concept of bright, achieving and under-achieving junior high school students.

(2) Achievers have somewhat higher self-concepts than do under-achievers and that under-achievers have more negative feelings of self.

(3) Under-achievers are more ambivalent about their self-concept since they evidence a fairly high degree of positive self-regard and also a fairly high degree of negative self-regard. (p. 61)

Bledsoe (1967) examined the self-concepts of fourth and sixth grade boys and girls in relation to their intelligence, academic achievement, interests, and manifest anxiety. He found significant positive relationships between self-concept and intelligence for boys, but not for girls. In addition, he found that girls have significantly greater self-esteem at these grade levels.

Perhaps the most comprehensive studies of the relationship of self-concept of ability and school achievement are those conducted by Brookover et al (1962, 1965). Some of the conclusions of the 1962 study of the students when they were in the seventh grade follow.

(2) Seventh grade girls have significantly higher mean self-concept of ability scores than seventh grade boys.

(3) Self-concept of ability is significantly related to school achievement of seventh grade boys and girls. The correlation is .57 for each sex.

(4) Self-concept of ability is positively related to school achievement in seventh grade when measured intelligence is controlled. The correlation, with measured intelligence partialled out, is .42 for boys and .39 for girls. High achieving groups also have a significantly higher mean concept of ability than do low-achieving groups with comparable measured intelligence scores...
(8) The hypothesis that a student's self-concept of ability is positively related to the image he perceives significant others hold of him is supported when parents, teachers, and peers are identified as significant others. . .

(14) Students who aspire or expect to go to college have significantly higher mean self-concepts of ability than students with lower educational aspirations or expectations. Somewhat more over-achieving students had high educational and occupational expectations than under-achievers, but the difference was not significant. (pp. 72-75)

In a later study (1965) Brookover reports on longitudinal data gathered for 463 of the students from grades seven through ten. In the longitudinal study, the findings largely supported the earlier findings from the seventh grade data.

(1) Self-concept of ability is a significant factor in achievement at all levels, seventh through tenth grades.

(2) The perceived evaluations of significant others are a major factor in self-concept of academic ability at each grade level, eight through ten.

(3) Change or stability in the perceived evaluations of others is associated with change or stability in self-concept.

(4) Change or stability in self-concept of ability is associated with change or stability in achievement. The associated change in achievement is noted, however, only over longer periods of time. (3 years)

(5) Change or stability of perceived evaluations of others is not likely to be associated with change or stability in academic achievement.

(6) The relationship of self-concept to achievement is not associated with school attended. (p. 201)

From the above cited studies one may conclude that there is a definite positive relationship between the self-concept and school achievement. In addition, while there is evidence that the self-concept is also related to intelligence, the relationship between self-concept and achievement exists even when the influence of intelligence is controlled.
Considerably fewer studies have been conducted to relate self-concept directly to school motivation. The basis for such studies might be found in Foote's (1951) contention that self-conceptions direct energy toward action viewed as fulfilling the self-conception. Thus, he concludes that self-conceptions have motivational properties.

Frymier supports Foote's contention with these statements: "The way students view themselves influences their motivation toward school." (1965, p. 125) In a later writing he elaborates:

It seemed reasonable to suppose that students whose motivation toward school was essentially positive would probably have a more positive concept of self, a more positive concept of others, and more able to tolerate uncertainty and the unknown, and be generally "healthier" in psychological ways. (1967, p. 4)

Research by Martire (1956), Mitchell (1961), and Wells (1965) generally support this position. Martire (1956) studied the differences in self-concept among four groups classed by the strength and generality of their achievement. He also studied the relationships of level of aspiration for a specific task to measures of both self-concept and achievement motivation. Using McClelland's technique for determining n-achievement to measure motivation, he found that subjects who obtained high n-achievement scores had a significantly greater discrepancy between self-ideal and self-ratings on the five achievement related traits combined than did the other subjects. In addition, he found "While both self-concept and level of aspiration measures were meaningfully related to projective measures of achievement motivation, they could not be readily related to each other." (p. 374)
Mitchell (1961) tested the relationship of eight tests, including McClelland's test of n-achievement and an inventory similar to the Bills' Index of Adjustment and Values, to achievement motivation. He gave the tests to one hundred female college students. Of twenty-nine factors analyzed from the various tests, six factors (including academic motivation and self-satisfaction) were identified as definitely related to achievement motivation.

Wells (1965) using 339 seventh grade students, studied the relationship of school motivation to a number of factors. The "self-score" of the Index of Adjustment and Values was used as the measure of self-concept and the JIM Scale was used to assess school motivation. He concluded "Motivation toward school was found in this study to be significantly related to sex, intelligence, self-concept, ability grouping, and achievement in school." (p. 68)

When relating self-concept to each of the variables he states, "Self-concept was found in this study to be significantly related to only one of the variables, motivation toward school." (p. 68)

In summary, it was demonstrated that the way in which a person regards himself is significantly related to school performance. In addition, it was shown that the self-concept of the individual is correlated with his school motivation. Finally, the self-concept was also found to be related to intelligence.

Self-Concept Related to Level of Occupational Aspiration

In a group of studies designed to determine the level of occupational aspiration of migrant and non-migrant youth, several
interesting findings were reported. Riccio (1965) compared recent migrants from Appalachia to a northern city with a group of students native to that city. He found no differences between these two groups. "The migrants in this study did not differ significantly in terms of occupational aspirations, role models, or cultural conformity from other non-Appalachian lower middle-class youth." (p. 29)

Stevic and Uhlig (1967) conducted a follow-up to the above study in which they compared the level of occupational aspiration of a group of Appalachian youth who stayed in the area with Riccio's group of migrants. Stevic and Uhlig found that those who did not leave seemed to be different from the migrant group.

(a) Appalachian youth who stay in the geographic area have significantly lower aspiration levels than those who are native to a rurban area. (b) The Appalachian youth have different role models and characteristics for success than those students who have migrated from the Appalachian area. (p. 435)

One might hypothesize that the level of occupational aspiration is actually a manifestation of one aspect of the occupational self-concept. If this is true, the above findings relating the level of occupational aspiration to social class are consistent with theories relating the self-concept to level of occupational aspiration.

A great deal of research has been conducted relating the concept of level of occupational aspiration to social class. Stephenson (1955) found that aspirations were relatively unaffected by social class, but that actual plans were. Other researchers such as Stubbins (1950), Kroger and Lotttil (1953), Kohl (1953 & 1957), Empey (1956), Navin (1964), and Clark (1967) did not make a distinction between aspirations and plans. These researchers found a
consistent positive relationship between the student's social class and his level of occupational aspiration.

Wylie (1961), in discussing the general concept of level of aspiration, suggests that level of aspiration is related to self-regard.

A number of psychologists have postulated that behavior in the experimental level of aspiration situation is a function of self-regard. (p. 243)...

A plausible hypothesis would be that self-accepting persons will have small, probably positive, goal discrepancy scores on the LA task. The prediction for the self-rejecting person is less clear: (1) perhaps he would show universally high positive goal-discrepancy scores or (2) perhaps he would protect his self-regard by negative goal-discrepancy scores which he could easily exceed. (p. 244)

The importance of the self-concept in occupational choice is being stressed more and more by contemporary theorists. One of the earliest statements espousing the relationship of self-concept to occupational choice was that of Super (1951) who said, "In choosing an occupation one is, in effect, choosing a means of implementing a self-concept." (p. 92) In a later (1953) publication he elaborated on this position.

The process of vocational development is essentially that of developing and implementing a self-concept. It is a compromise process in which the self-concept is a product of the interaction of inherited aptitudes, neural and endocrine make-up, opportunity to play various roles, and evaluations of the extent to which the results of role playing meet with the approval of superiors and fellows. (p. 189)

Field, Kehas, and Tiedeman (1963) elaborate on the role of the self-concept in vocational choice by naming aspects of the self and situation which are considered in making such a choice. They then relate them to vocational aspirations and implementation.
Individuals choose actions which fit their current notions of: (1) What they are like, (2) What they can be like, (3) What they want to be like, (4) What their situation is like, (5) What their situation might become, (6) The way they see these aspects of self and situation as being related. (p. 769)

To the extent that choice is based upon these concepts of self and "out there," to that extent do such styles become the bases for action choices, i.e., of vocational aspirations, of plans for implementation, or entry into a position, and of development and/or beyond entry positions (career). (p. 770)

Stefflre (1966) hypothesizes that the person's job choice is an implementation of only one aspect of the individual's self-concept, the "occupational person." He suggests that the work aspect of an individual's life can vary from central to peripheral. Stefflre further suggests that, in addition to the fact that occupations have varying impacts upon the self-concept of different individuals, there are differences between the person's self-concept and his "self" as seen on the job.

Holland (1959) relates the self-concept more directly to the level of occupational aspiration. He suggests that the level of occupational choice within a class of occupations is in part a function of self-evaluation. Combined with the theories espoused above, one may see that the self-concept probably helps determine not only the type of occupation but also the individual's level of aspiration within that occupational group.

Haller (1963) thinks that the person's level of occupational aspiration is determined, in part, by his conception of himself in relation to the style of life ascribed to that occupational level.
Level of occupational aspiration is evidently related to concepts of self and role, and through these, to a third type of motivation. Therefore, this implies that, to the degree that the person has a unitary LOA, he has a conception of himself in relation to the styles of life he imputes to the various levels of occupational hierarchy. (p. 15)

A few studies have been conducted to study the relationship of the self-concept to level of occupational aspiration. Using the more general concept of level of aspiration, Cohen (1954) studied 50 hospitalized patients. He found that, on the Rorschach and the Rotter Aspiration Board, both very high and very low goal-setting reflected self-rejection. In other words, a curvilinear relationship existed between the two.

As a part of an extensive study of the self-esteem of adolescents, Rosenberg (1965) explored the relationship of self-esteem to occupational aspiration in nearly 1300 high school students. He found that, in general, students with low self-esteem tended to see their occupational future as one of frustration. Rosenberg commented on this finding:

If we speak of anticipated success, then self-esteem may be a cause as well as a consequence of frustration. The paradox resides in the fact that the same conditions which produce a strong desire for occupational success also produce a weak expectation of success. (p. 230)

Rosenberg found that adolescents with low self-esteem were as likely to want to get ahead, but were less likely to expect to get ahead. In addition, when asked "what qualities are necessary to get ahead" and then "which of these qualities do you possess," differences between those with high and low self-esteem were again apparent. Students with high self-esteem who considered a
particular quality essential for success were more likely than those with low self-esteem to feel that they possessed the quality to a high degree.

In summarizing the relationship of level of occupational aspiration to self-esteem, Rosenberg said:

It would thus appear that people with low self-esteem are sufficiently a part of their culture to want what most other people want—occupational success—but their low estimates of their own abilities or other relevant qualities make them dubious that they will succeed in achieving what all value. Nor do their compulsive desires for approval permit them to so lower their "pretensions" that a harmony between their aspirations and expectations can be achieved. (pp. 236-237)

Pallone and Hosinski (1967) used a Q-sort to determine the self-concept, ideal self-concept, and occupational role percept of 168 student nurses. The authors found that occupations were chosen more to conform to their ideal self-concept than their self-concept.

Hence, it is suggested that among the student nurses investigated, vocational choice represents a process of selecting an occupational role perceived as providing opportunities for actualizing the ideal self more than a process of accommodating the self as perceived in the here-and-now with the parameters of a given occupational role. (p. 670)

An attempt was made by Anderson and Olson (1965) to determine whether students with a high congruence between self and ideal-self made more realistic occupational choices than those with a low congruence. Their results were inconclusive and did not provide enough evidence to confirm or reject their hypothesis.

A study by Schultz and Blocher (1961) most closely resembles the study reported in this dissertation. They administered the Occupational Level Scale of the Strong Vocational Interest Blank.
and a measure of self-satisfaction to 135 senior boys of above average intelligence. The measure of self-satisfaction consisted of 180 words using 96 per cent of the clusters which Cattell considered to be a comprehensive list of personality characteristics. Self-satisfaction was defined as the similarity between the ideal self score and the self score. They found a significant \((r=.37, p=.01)\) relationship between level of occupational aspiration and self-concept.

In summary, current level of aspiration and vocational choice theory suggests that there is a relationship between the self-concept and level of occupational aspiration. Research to date on this topic is limited and the results are equivocal. Some positive results, however, suggest that the area merits further study.

**School Motivation Related to Level of Occupational Aspiration**

Literature exploring the link between school motivation and level of occupational aspiration is limited. Haller (1963) suggests a relationship between the way a person regards himself, his level of occupational aspiration, and his motivation.

LOA is evidently related to concepts of self and role and through these to a third type of motivation. Therefore, this implies that to the degree that the person has a unitary LOA he has a conception of himself in relation to the styles of life he imputes to the various levels of the occupational hierarchy. (p. 15)

Haller feels that one possible manifestation of motivation, i.e., educational achievement, is positively correlated with level of occupational aspiration.
Persons who view themselves as successful or achievement oriented should tend to view themselves as high aspirers in the occupational sphere. It should follow that LOA is positively correlated with conceiving of one's self as successful or as achievement oriented. (p. 32)

The only relationship which Haller specifically suggests between LOA and motivation is that between LOA and n-achievement. He feels that n-achievement should be more highly correlated with success at a particular job than with the prestige level of the job that a person assumes. He does not feel, however, that n-achievement and LOA are uncorrelated.

In particular, high n-achievement is held to influence behavior at work and in training for work. Evidently then, persons who are high in n-achievement would be expected to learn and to put into action more effective work-practices than others do, and for this reason it would be expected that n-achievement should influence prestige levels of occupational achievement, and levels of educational achievement as well. . . Secondly, since n-achievement refers to the quality of performance, rather than to occupational hierarchy, it should follow that it is most effective as a predictor of the excellence of work in whatever occupation the person finds himself, whether it is shining shoes, or making foreign policy decisions. LOA, of course, should be most effective as a predictor of the prestige level of the occupation the person takes. It is, therefore, doubtful that n-achievement would be particularly highly correlated with the quality of performance in a particular occupation. But this is not to say that they should be uncorrelated. Others usually have a stake in, and a degree of control over, a person's occupational career. It is doubtful that many persons of low n-achievement would be permitted to attain high prestige occupations, and it is likely that a disproportionate number of those with high n-achievement would be advanced to higher positions. The connection between quality of performance—and, therefore, n-achievement—and levels of occupational achievement is probably visible to most persons. For this reason, n-achievement and LOA should each have a moderate and positive correlation with the behavior appropriate to the other. This has not been tested to date. (p. 14)
The need to test empirically the relationship between academic and occupational motivation was suggested by Farquhar and Payne (1963).

A link is needed between academic and occupational motivational theory to test empirically the assumptions that (1) There is a relationship between academic and occupational motivation, (2) The elements which make for success or failure in scholarship function similarly in the world of work. (p. 245)

It appears that the studies which Haller and Farquhar and Payne suggest to check the relationship of motivation and LOA have not been conducted. Some studies have been done which relate indirectly, however. Studies by Navin (1964), Sudduth (1964), March (1964), Russell (1965), and Schlueb (1965) establish a significant correlation between LOA, intelligence, and achievement. None of the above studies checked the relationship of LOA to achievement when intelligence was controlled.

Barnett (1952) in an earlier study using the Strong Vocational Interest Blank, Occupational Level (OL) Scale as a measure of level of occupational aspiration did control for intelligence. He found that the relationship of OL scores and academic achievement was no longer significant when intelligence was controlled.

There is a significant relationship between OL scores and academic achievement, but when intelligence is held constant, the coefficient of correlation is positive but no longer significant. In a multiple correlation of academic achievement with intelligence and OL scores, the correlation coefficient increases slightly. It appears that the OL score is not useful as a predictive tool for academic achievement. However, the data reveal that an individual's OL score is related to his intelligence and academic achievement. How the individual appraises his abilities and achievement appears to determine to a great extent the level of his choice of occupational goal. (p. 17)
A different approach was used in recent research by Sandeen (1968). He studied the aspirations of three groups of students over a four year period. Three groups of students (a) one composed of those who aspired to college and to occupations typically requiring a college degree, (b) one comprised of those not aspiring to college, and (c) one composed of students who indicated a disparity between their educational and occupational aspirations, were identified. Sandeen found that the college-aspirers had a significantly higher self-concept of ability, higher perceived parental evaluation, higher social class and higher grade-point-average.

Heath and Strowig (1967) conducted a follow-up study of 2,230 Wisconsin male high school graduates. They attempted to determine which factors were most important in determining later occupational status. Heath and Strowig concluded:

Family background factors and aspiration levels are not as important in predicting occupational status as are further education and training, high school achievement, and community of orientation in a highly industrialized urban technocracy. (p. 144)

In summary, little research has been conducted to study the relationship of level of occupational aspiration to school motivation. The relationship of LOA to school achievement and social class has been demonstrated. Theoretical formulations by Haller suggest that there is a relationship between motivation and level of occupational aspiration.

In the next section literature will be reviewed which relates to instruments used to measure the concepts being studied. Measures other than those used in the study will be discussed prior to
discussing those administered in this research. The order of the concepts to be discussed is self-concept, school motivation, and level of occupational aspiration.

**Instruments**

**Self-Concept**

Other Measures

The measurement of the self-concept has received extensive coverage in the professional literature in recent years. Most of this attention is a result of efforts to test phenomenological personality theories. Wylie (1961) made an attempt to review all of the research done to date on the self-concept. She concluded that while there were positive findings, "There is a good deal of ambiguity in the results, considerable apparent contradiction among the findings of various studies, and a tendency for different methods to produce different results." (p. 317) She blamed internal inconsistencies in most of the self-concept theories for most of these problems.

In support of Wylie's contention that different methods of measurement produce different results, Combs et al (1963) compared the measurement of self-concept and self-report. He defined the self-concept as "what the individual believes about himself; the totality of his ways of seeing himself." (p. 494) Self-report was defined as "a description of self reported to an outsider. It represents what the individual says he is." (p. 494) Self-concept was measured by observing the individual's behavior and inferring self-concepts which caused such behavior. Self-report was
determined by the student's responding to eighteen self-descriptive statements. The authors found that there was no correlation between self-concept and self-report. They suggested that studies which purported to measure the self-concept were actually studies of the self-report. If one accepts Combs' definitions, then the concern of this dissertation is with self-report, not self-concept.

Because of the great number of non-standardized self-report instruments which have been used without adequate standardization, no attempt will be made to review all such instruments. Instead, reference will be made to a study (Strong and Feder, 1961) which reviews the basic types of self-concept measures. Strong and Feder, (1961) describe four basic types of measures: (1) Q Technique, (2) Likert-Type Rating Method, (3) Free Response Methods, and (4) Check Lists.

A specialized application of the Q Technique which has been used extensively in self-concept is that of the Q Sort. The Q Sort consists of sorting various statements on cards under certain given instructions. The person is asked to sort a number of self-reference statements into a series of piles or classes along a continuum from those most like him to least like him. Strong and Feder conclude that the Q Sort is quite adaptable and is useful for studying certain aspects of self-concept with certain groups. They feel that it does have certain limitations, however. Two of the more serious limitations are: (1) Individuals may be grouped according to similarity in profiles, but be quite different in personality structure, (2) The Q Sort is time consuming since it is usually administered individually.
The majority of the self-concept measures use a Likert-Type five-point rating scale. On such measures, statements of personality traits are rated on a scale suggesting the degree to which the statement applies to the individual.

This Likert-Type rating method has the advantage of being able to be given to a group and of being quickly and easily administered and scored. Certain technical problems exist in this technique, however.

This method results in an objective total score which is usually obtained by simply summing the ratings assigned to each item. The process of summation tends to obliterate the uniqueness of individual items and may obscure important clues to certain isolated self perceptions. The assumption is also made that all items included hold equal importance in the calculation of a final score. Another problem inherent in this method is that the subject may unwittingly produce spurious results by yielding to the tendency of rating consistently in the direction of the middle or the extremes as a carry-over effect from one item to the next. (Strong & Feder, p. 73)

The third method of measuring the self-concept suggested by Strong and Feder is the "free response method." In this method, the subject responds to open-ended sentences. This technique gives a projective quality to the responses, but it can be scored objectively by preselected categories. In spite of the advantage of an opportunity for freer responses on the part of the subjects, this method also has certain serious limitations. Strong and Feder suggest that such responses are difficult to quantify and score objectively, and validity is difficult to establish.

A final method of measuring the self-concept mentioned by Strong and Feder is that of check-lists. In this method the individual merely checks the appropriate adjectives or statements that
describe himself or other persons being evaluated. Such a method appears to be reliable and valid, but items are treated in an all-or-none fashion, rather than qualitatively.

There have been more recent attempts to assess the self-concept in other areas, but they follow the general pattern of types of instruments described by Strong and Feder. Some of the more recent instruments and the areas that they measure are:

**Tennessee Self-Concept Scale** (Ashcraft & Pitts, 1964)

Measures: Five Aspects of Self
1. Physical
2. Moral-ethical
3. Personal
4. Family
5. Social

**Self-Concept of Ability** (Brookover, Patterson & Thomas, 1962)

Measures:
1. General Self-Concept of Ability
2. Self-Concept of Ability in Specific School Subjects

**Word-Rating List** (Payne and Farquhar, 1962)

Measures: Specific Academic Self-Concept

In summary, the measurement of the self-concept has been the subject of a great deal of research, but, as yet, much confusion is still present about the term "self-concept" and its measurement. A great many self-report type instruments have been created which purport to measure the self-concept, but little research has been done to establish the validity of most of them. The measure which has probably been used most often to measure the self-concept is the Bills' **Index of Adjustment and Values** which will be discussed in the next section.
Index of Adjustment and Values

The Bills' Index of Adjustment and Values was developed in the 1950's for use in testing certain theoretical formulations, to serve as a research tool, and to assess changes in adjustment during psychotherapy (Bills, Vance, and McLean, 1951). It can be used to measure four variables consisting of self, acceptance of self, ideal-self, and self-satisfaction (discrepancy between ideal-self and self-scores).

In developing the Adult Form (Bills, undated (a)) a sample of 124 words was taken from Allport's list of 17,953 traits. In selecting the items an effort was made to choose items occurring frequently in client-centered interviews and which seemed to present clear-cut examples of self-concept definitions. Forty-four students were asked to rate the 124 items on their perception of themselves, how they felt about it, and how they would like to be. These same subjects were asked to rate the items again three weeks later. The average variations for each word were calculated, and those words were discarded which showed a greater average variation than the average variation of the subjects on all of the items. This resulted in the retention of 49 words.

It was found that the words used in the Adult Form were too difficult for children below grade eleven so efforts were made to develop forms appropriate for younger children (Bills, undated (b)). The words for the High School Form (the one used in this research) were derived from questioning approximately 850 children in grades one to eleven about words which they used to refer to themselves
and others. From these words, those which represented the most frequently given attributes were selected. On the basis of item analysis, a final list of words was chosen for the High School Form. The instructions for the High School Form remained the same as that for the Adult Form.

Reliability of the instrument was checked by administration to approximately 200 college students [Bills, undated, (a) p. 54]. Bills found split-half reliabilities for the Adult Form from .53 to .91. In a test-retest reliability check after six weeks, he found reliability coefficients from .83 to .92. Split-half reliability for the High School Form for a sample of 150 students from grades nine through eleven ranged from .86 to .94.

As evidence of validity, [Bills, undated, (a) p. 65] discussed research in the areas of content, concurrent, and construct validity. He concluded that there has been no attempt to validate the Index of Adjustment and Values as a predictive instrument.

As evidence of content validity, Bills cited the method in which the items were derived [Bills, undated (a)]. Evidence on concurrent validity is more extensive. Bills (pp. 64-73) reviewed a number of studies [Bills, 1953 (a) (b) (c); Berger, 1952; Brownfain, 1952; Cowen, 1954; and Omwake, 1954] which clearly demonstrates a relationship between the Index of Adjustment and Values and other generally accepted measures.

Evidence of construct validity is provided by studies of emotional adjustment [Bills, undated (a); Roberts, 1952; and Jackson and Carr, 1955]. Additional evidence is given by
Renzaglia (1952) who found that students who scored high on self-acceptance (Column II) showed the following traits when contrasted with students who scored low:

1. More optimism with respect to future success in college;
2. Greater satisfaction with immediate periods in their life;
3. Much less feelings of tension and anxiety;
4. A greater tendency to externalize their conflicts;
5. A more favorable appraisal of their self-characteristics;
6. That they value certain personal traits considerably more;
7. That they conceive others to possess more favorable personal attributes;
8. Less experience of a negative sort;
9. Less intense feelings toward punishing experiences;
10. More favorable attitudes toward their parents;
11. That fewer people punished them;
12. That they are more certain about what they are willing to say about themselves. (p. 184)

While these findings seem generally consistent with what one would expect of a self-accepting person, a note of caution is in order about using self-ideal discrepancy as a measure of self-acceptance.

Schroeder (1964) cautions that self-ideal discrepancy only measures one aspect of self-acceptance.

In practice, as well as in theory, self-acceptance refers to the ability to admit or claim as part of the self both approved and disapproved behaviors without distortion or depersonalization.

Self-ideal discrepancy can, at best, index but one portion of self-acceptance—the degree to which approved behaviors are claimed—and even here it is equivocal in meaning. (p. 405)
Wylie (1961) also criticizes the over-simplification of the concept of self-acceptance into that of a self-ideal discrepancy. She cautions:

When we look at (Self-Ideal) discrepancies as measures of self regard, the situation becomes even more complicated. In a sense (Self-Ideal) discrepancies are derived from a statement of aspirations (Ideal Self) and a statement of perceived attainment (Actual Self). It is often assumed that a small discrepancy indicates high self regard. However, it is important to note that one cannot say from the size of the (Self-Ideal) discrepancy itself what combination of ideal-ratings and self-ratings went into making it this size. (pp. 244-5)

Evidence cited for the content and concurrent validity of the High School Form [Bills, undated (b), pp, 14-16] is more limited. Bills again stresses the method of item selection as evidence of content validity. He cites one study relating scores of ninth and tenth graders on the Adult and High School Form. In both groups there was a significant correlation between scores on the two forms.

Several studies [Bills, undated (a); Renzaglia, 1952; and Strong, 1962] have been conducted which have measured the inter-correlations between the various scores on the Adult Form. In all instances except between ideal self (Column III) and self-satisfaction (Column III - Column I) significant correlations were found. Correlations between self (Column I) and self-acceptance (Column II) ranged from .75 (Renzaglia) to .90 (Bills). Correlations between self (Column I) and ideal self (Column III) were from .45 (Renzaglia) to .55 (Bills). Self-satisfaction (Column III - Column I) correlated negatively from -.53 (Renzaglia) to -.83 (Bills) with self (Column I). Smaller but still significant correlations were found between self-satisfaction (Column II) and ideal self (Column III).
These ranged from .29 (Strong) to .40 (Renzaglia). Negative correlations were found between self-acceptance (Column II) and self-satisfaction (Column III - Column I) which ranged from -.35 (Renzaglia) to -.67 (Bills). In the final area, the correlation between ideal self (Column III) and self-satisfaction (Column III - Column I) results ranged from a negative correlation of -.15 (Bills) to a positive .50 (Renzaglia).

Strong (1962) investigated the influence of social desirability upon scores on the IAV and several other tests of self-concept. He concluded:

The correlation obtained showed that the relationship was generally rather low between Social Desirability and other variables within the same test. These relationships seem to indicate that the role of Social Desirability, as the term is defined in this study, was not very great in any of these instruments, the greatest influence being in the concept of the ideal self or personal desirability. (p. 67)

It is apparent from the foregoing discussion, that the Bills' Index of Adjustment and Values has been the subject of a great deal of study. Two final reviews point to the fact that while the Index of Adjustment and Values is far from perfect, it may be one of the best measures currently available. Wylie (1961) after reviewing a number of instruments purporting to measure the self-concept, points this out.

Thus, we conclude: (1) Despite the fact that different scoring procedures have been assigned different verbal labels (e.g., self-acceptance, self-esteem, self-ideal discrepancy), their discriminant validity for inferring different aspects of phenomenal self-regard has not been demonstrated. (2) While the available data are quite limited, there is some evidence that scores derived from different instruments, utilizing varying content, different operations on S's part, and different scoring procedures do tend to be measuring a common variable or variables, to a slight or moderate degree.
The construct validity of any one of these instruments for measuring phenomenal self-regard remains to be demonstrated, although Bills presents the most pertinent and convincing evidence on this question. (p. 107)

Strong and Feder (1961) point out that, as a Likert-Type five-point rating scale, the Index of Adjustment and Values is subject to the limitations of all such scales. In spite of the limitations of such instruments, Strong and Feder conclude "The data which have been collected from several studies indicate that the Index is a reliable and valid measure of adjustment and values." (p. 172)

In summary, the Bills' Index of Adjustment and Values is based upon phenomenological self-theory and was originally designed to assess the effects of client-centered psychotherapy. Extensive research has indicated that the Index of Adjustment and Values meets acceptable standards of reliability and validity. In addition, studies have pointed out that the four self-concept scales on the IAV are significantly intercorrelated. Finally, doubt has been cast upon the ability of the self-satisfaction scale (Column III - I) of the instrument to actually measure self-satisfaction. Next, we will consider measures of school motivation.

School Motivation

Other Measures

The factors, other than intellectual ability, which contribute to academic achievement have been the subject of concern and study for some time. Non-intellectual personality factors in achievement have usually been operationally defined as motivation,
regardless of the nature of the factor involved.

One of the earlier attempts to measure academic motivation was that of Gough (1953). He stated that higher scores on the test which he constructed "are suggestive of greater seriousness of purpose, more persistence in academic and scholastic pursuits and more diligent and systematic work habits." (p. 331)

Mitchell (1961) attempted to distinguish the factorial dimensions of the more broad concept of achievement. He used eight instruments of achievement motivation including:

1. McClelland Test of Achievement Motivation,
2. a sentence completion test of achievement motivation developed by Mitchell,
3. an adjective check list containing achievement related items mostly from the Bills' IAV,
4. an inventory type of test of achievement motivation containing true and false items borrowed from the MMPI,
5. a multiple choice questionnaire containing achievement motivation items,
6. the Taylor Manifest Anxiety Scale,
7. level of aspiration measures, and
8. a measure of discrepancy between achievement and potential derived from grade-point-average and ACE scores. Mitchell administered these instruments to 131 female college students and then analyzed the 29 separate factors from the 8 tests. Six factors were identified as related to achievement motivation.

1. Academic motivation and efficiency
2. Wish fulfillment motivation
3. Non-academic achievement motivation
4. Self-satisfaction
5. External pressure to achieve
6. Inputed generalized motivation without attendant effort

(p. 187)
Two tests have been developed which attempt to assess the motivation of students in the senior year of high school and above. The first of these is the Achiever Personality Scale (Ach P) of the Opinion, Attitude, and Interest Survey (OAIS) constructed by Fricke (1965). This scale consists of 86 true and false items contained in the larger battery of 411 items. Fricke's research indicates that the Ach P Scale does correlate appreciably with college grades and negligibly with measured intelligence (p. 107).

The second of these tests is the Motivational Analysis Test (MAT) of Cattell (1965). This test also correlates significantly with school achievement when intelligence is held constant. It is for college level students, and is more appropriate for clinical usage (p. 195).

A second test developed by Catell (1965) and to be made available to the public in 1968 is the School Motivational Analysis Test (SMAT). This test is designed to be used at the high school level for the prediction of achievement and analysis of adjustment problems (p. 195). Research by Pierson (1964) and Pierson, Barton, and Key (1964) indicate that the SMAT offers great promise in predicting achievement as measured on standardized achievement tests.

One additional test seems to have had some success in differentiating between high and low achieving students when intelligence is controlled. Payne and Farquhar (1962) found that the Word Rating List (WRL), a measure of academic self-concept, was successful in predicting achievement. After administering the WRL to 312 eleventh grade students they concluded:
(a) it is possible to identify a set of reliable theory-derived items which significantly discriminate between underachieving and overachieving (high, low motivated) eleventh grade high school students; (b) notwithstanding the high positive intercorrelations, several relatively independent interpretable dimensions were identified; and (c) both common and unique items are found between the sexes when measuring academic self concept. (p. 192)

In summary, a limited number of measures are currently available which have been used to predict academic achievement when intelligence is held constant. To date, these tests have appeared to be successful in predicting academic achievement in the few studies which have been published. Next, we shall consider the measure of academic motivation used in this study, the JIM Scale.

**JIM Scale**

Frymier has been developing the JIM Scale over the past ten years. In developing the JIM Scale, Frymier made a number of assumptions about school motivation. He assumed that it was internal rather than external; and that it would include such areas as "the individual's attitude toward school, the extent to which he valued education, his feelings for other people, the value which he attributed to ideas, his concern for material things, his personal determinates, and his attitude toward himself." (1967, p. 3)

In addition, to the above assumptions about the content of the items, he made these additional assumptions about the nature of the instrument.

(1) It should be "conventional" in nature, (2) Items should be short, easy to respond to and relatively unambiguous, (3) Items should be phrased in such a way as to be at least partially projective in nature (i.e., rather than respond to an item as it applied to him, it was phrased to apply to "most people"). (4) Many items were phrased with a value
hierarchy readily apparent. (5) The test was designed to be valuable as a total scale only, individual responses to individual items were unimportant. (Frymier, 1967, p. 4)

After developing a number of items, the test was given to approximately 3,000 junior and senior high school students over a period of years until fifty items were finally identified which discriminated between students selected by teachers as high and low motivated. In this phase of the study, it was found that it was much easier to construct items which discriminated between high and low motivated girls than boys, although the final group of items worked adequately for both sexes. During early phases of development split-half reliability was found to be .72, but no information is available on the reliability of the current form, Form F.

Several validation studies have been conducted with the current form with equivocal results. (Frymier, 1967, pp. 29-44) The test discriminated at the .001 level between 366 boys and girls picked by their teachers as high and low achievers. Teachers also answered the scale as they thought high and low achievers would answer. There was a significant difference between the responses of the two groups. Other studies of this nature generally supported the above findings, but the test seemed better able to discriminate between girls than boys.

An attempt was made to see if the test would discriminate between college honor and non-honor students. It was found that the test did not discriminate between groups, but both groups scored much higher than high school or junior high school students.
In another study, Frymier attempted to determine if the JIM Scale would discriminate between high and low scores on the STEP Test. He found that students with high JIM Scale scores had significantly higher STEP scores and that girls scored higher than boys. The correlation between JIM Scale scores and the Kuhlman-Anderson Intelligence Test was computed and found to be .26.

Finally, two studies matching groups of students are reported. In the first, four groups (boy and girl, high and low JIM Scale scores) of thirty students were matched on the basis of IQ. Girls higher on the JIM Scale had significantly higher achievement scores when intelligence was controlled. Boys' scores were also higher, but not significantly so.

In the second study, 163 (80 pairs of girls, 83 pairs of boys) pairs of under and over-achieving students were matched on the basis of sex, language IQ, non-language IQ, and grade in school. It was found that the JIM Scale differentiated between over and under-achieving girls at the .001 level and boys at the .05 level. When these students were not matched, but language and non-language IQ, achievement scores, and school marks were used to define over and under-achievement, a significant difference between over and under-achievers at the .001 level was found on JIM Scale scores for both boys and girls.

Forman (1964) used thirty matched pairs of junior high school students to study the ability of the JIM Scale to discriminate between motivated and unmotivated students. He found that there was no significant relationship between JIM Scale scores and teacher
ratings of those students most and least motivated. He did find, however, that the JIM Scale did differentiate when used to predict standardized achievement test scores and school marks.

In summary, the JIM Scale is an attempt to develop a short, objective test of academic motivation. To date, it has been used primarily with junior high students, although it was designed to be used with all students above grade six. Results to date indicate that it is a more effective predictor of school motivation for girls than boys. In addition, reliability data is quite limited but indicates that results should be used to predict group rather than individual performance. Finally, studies of validity indicate that the test usually, but not always, predicts achievement when intelligence is held constant. The foregoing results indicate that caution should be used in interpreting results of research utilizing the JIM Scale as a measure of academic motivation. Next, instruments to measure occupational aspiration will be discussed.

**Occupational Aspiration**

**Other Measures**

Only two measures of level of occupational aspiration are currently commercially available, the Occupational Level Scale (OL) of the Strong Vocational Interest Blank (1959) and Level of Interest (LI) scale on the Lee-Thorpe Occupational Interest Inventory (1956). Both of these tests measure the extent to which an individual's interests are similar to, or different from, interests of persons who are known to be successful in certain occupational areas.
The Strong asks persons to check "Like-Indifferent-Dislike" for a series of occupational titles, school subjects, recreational activities and characteristics of individuals. A low score on the OL Scale indicates interests similar to those of manual laborers, a high score means that the person answered the questions more like business or professional people. Haller (1963, pp. 22-54) cites extensive evidence which leads him to conclude that "the OL Scale is not one of the more accurate measures of LOA." (p. 22)

The LI Scale of the Occupational Interest Inventory is a separate section of the test designed to measure level of interest. This section has thirty forced-choice triads. Each triad consists of three activities within an interest area, each involving a different degree of skill. The person is to choose the preferred activity from each triad. Haller (1963) feels that while evidence of reliability is impressive, that of validity is not.

Several non-commercial instruments (Lurie, 1939 and Stubbin, 1950) have been designed to measure LOA for a particular research study. In such instances, inadequate development has usually left the validity and reliability unknown.

In summary, two commercial instruments have been developed to attempt to assess the concept of LOA. These instruments, and various non-commercial ones do not seem to be adequate measures of LOA.

The Occupational Aspiration Scale

In an attempt to improve upon previous attempts to measure LOA, Haller and Miller (1963) developed the Occupational Aspiration
Scale. The Occupational Aspiration Scale (OAS) measures the level of occupational aspiration (LOA) of an individual. Miller and Haller (1964) define LOA as "The area (a point or limited range of points) of the occupational prestige hierarchy which an individual views as a goal." (p. 448)

The instrument developed to measure this concept was described by Haller and Miller (1963) as follows:

The OAS is an eight-item multiple choice instrument. It includes items permitting responses at both the realistic and idealistic expression levels of LOA, each at two goal-periods, called career periods in this context, short range (end of schooling) and long range (at age 30). The four possible combinations of these components are each assessed twice, thus giving a total of eight questions. The alternatives for each item consist of ten occupational titles drawn from among the ninety occupations ranked by the NORC study of the prestige of occupations. Each occupation is presented as a possible response only once on the form. Alternative responses for each item systematically span the entire range of occupational prestige, and are scored from zero to nine. Operationally, an item score of 9 indicates that the respondent has chosen an occupation from among the eight highest prestige occupations on the NORC scale, and an item score of 0 indicates that one of the eight lowest prestige occupations has been chosen. Thus, the total possible score for all eight items ranges from zero to 72. This score is used to measure the individual's general LOA: It is designed, not as an absolute measure of LOA, but only as a measure of relative LOA. It is primarily for use on male high school students. Thus, the level and range of difficulty of the test items is oriented to male subjects of this age and educational status. The OAS is a self-descriptive instrument. It is easily administered in a group testing situation, but it may also be administered individually. (pp. 56-59)

Several studies of the reliability of the OAS indicate the reliability to be around .80, which the authors conclude is reliable enough for research purposes and counseling individuals. (Haller and Miller, 1963, p. 79; Westbrook, 1966, p. 1000)
Studies of the predictive validity of the OAS are not yet available since many of the subjects originally studied are still in school. Two types of validity were cited by Miller and Haller (1964), however. In a study of the factor structure of the OAS they concluded that "Thus, in terms of factor structure the OAS appears to be a relatively pure measure of what is evidently a general LOA variable." (pp. 452-453)

In a study of the concurrent validity of the instrument, Haller and Miller (1963) constructed an open-ended questionnaire utilizing the same stimulus questions as the OAS. Student responses were then coded according to the NORC rankings of occupational prestige. It was found that the correlation between the two instruments was .62.

Behavior relevance was studied as another aspect of construct validity (Miller and Haller, 1964). It was found that the following variables were correlated with OAS at the .05 level:

Number of years college planned (+0.64), high school grade-point average (+0.50), intelligence (+0.45), parental desire for respondent's educational achievement (+0.44), socio-economic status of the respondent's family (+0.37), number of high school agriculture courses taken (-0.30), father's educational status (+0.29), belief in internal or self-determination of events (+0.28), total personality adjustment (+0.28), perseverance-determination (+0.26), adventurous sociability (+0.24), parental desire for respondent's high level of occupational achievement (+0.22), positive evaluation of deferred gratification (+0.21), positive evaluation of physical mobility (willingness to break community relationships to get ahead) (+0.20), emotional stability (+0.19), sophistication (+0.16), will control and character stability (+0.16), independent self-sufficiency (+0.14), cyclothymia (+0.13), positive evaluation of structured time (preference for punctuality) (+0.11), and nervous tension (-0.11). (p. 453)
They concluded their discussion of validity by stating that although the evidence was somewhat mixed, "the OAS is to some extent correlated with variables with which a valid LOA measure would be expected to be correlated and in that it tends to be uncorrelated with variables with which a valid LOA measure would be expected to be uncorrelated." (p. 454)

In a more recent study, Westbrook (1966) reports on a study of eleventh grade boys and girls. Previously, Haller and Miller used the OAS with boys only. Westbrook's analysis of the factorial structure of the OAS, the concurrent validity of the OAS, and the open-ended questionnaire of Haller and Miller confirms the findings of Miller and Haller. In addition, Westbrook found the following variables correlated with OAS scores: "Number of years of college planned (.69); high school grade-point average (.57); scholastic ability-SCAT (.45); parental desire for respondent's educational achievement (.48); and socio-economic status of the respondent's family (.43)." (pp. 1003-4)

Before concluding the discussion of the OAS, mention should be made of three criticisms of the OAS design which the authors offer (Haller and Miller, 1963). They suggest that the instrument is probably easily fakable, that it has unbalanced response alternatives, and it may be subject to error due to response sets. (pp. 66-67)

In summary, studies by Haller and Miller (1963), Miller and Haller (1964), and Westbrook (1966) suggest the Occupational Aspiration Scale is a useful device for measuring LOA in males.
In addition, preliminary studies indicate that it has adequate reliability and validity for research purposes.

**Summary**

This chapter has discussed the literature relating to the self-concept, school motivation, and level of occupational aspiration. In addition, instruments used to measure these concepts have been reviewed. The following chapter will review the methodology used in this study.
CHAPTER III

PROCEDURES

Introduction

This chapter will deal with the procedures used in conducting this study. The following topics will be discussed: the setting, the sample, the instruments, data collection, the hypotheses, and the statistical analysis of data.

The Setting

Hudson is a small suburban upper-middle class village of approximately 3,000 residents in northern Ohio midway between Akron and Cleveland. The school district has a population of about 7,000 and is composed of three rather distinct concentric circles. In the center circle is the village with its large, expensive New England type homes.

The second circle consists of Hudson Township which surrounds the village. Housing in the township is approximately the same as that in the village, but it is concentrated primarily in several housing developments. People who reside in the township are also primarily upper-middle class. Needless to say, the people who make up these two portions of the school district are quite college-oriented and account for the fact that approximately 65 to 75 per cent of Hudson graduates traditionally have attended college.
The presence of the third concentric circle in the Hudson School District has led to major changes in the curriculum in the past three years. In this third area, bounded to some extent by major highways, live people who would be classed primarily as lower-middle class blue collar workers.

In 1965, as the school personnel became increasingly aware of the needs of students from these homes, an experimental vocational curriculum was introduced in the high school; and the general curriculum was eliminated. Today, approximately 25 per cent of the students are enrolled in the vocational curriculum, 10 per cent are enrolled in a mixed curriculum, and 65 per cent are enrolled in the college preparatory curriculum.

Some features of this vocational program include: the general curriculum has been eliminated; a "World of Work" course is required of all students in the eighth grade; students may receive cooperative work experience in an area of interest; exploratory vocational skill courses are required of all vocational students in the ninth and tenth grades; state approved vocational courses are offered in the eleventh and twelfth grades; students have an opportunity to take a combined curriculum of college preparatory and vocational subjects if they so desire; letter grades have been eliminated and replaced by quarterly report forms for vocational students; at-school parent conferences are held twice each year to discuss each student's progress; and finally, guidance services are extensive (one guidance counselor and two administrative-guidance personnel for approximately 250 vocational students).
When the vocational program was introduced into the high school in September, 1965, it was supported by a four year grant from the U.S. Office of Education as a demonstration project. One of the stipulations of the grant was that there be an evaluation of the effectiveness of the program. As a result, a yearly testing program was begun in 1965 for this purpose. Data used for this study came from three of the instruments administered to the students in the 1967-68 school year as a part of this more comprehensive evaluation.

The Sample

The three questionnaires were given to all Hudson students in grades nine through twelve. Because the Occupational Aspiration Scale was designed primarily for boys and contains many occupations seldom considered by girls, only the boys in grades nine through twelve were used as subjects in this analysis. The sample consisted of 11 vocational and 37 college preparatory boys in grade twelve; 11 vocational and 60 college preparatory boys in grade eleven; 11 vocational and 70 college preparatory boys in grade ten; and 24 vocational and 72 college preparatory boys in grade nine making a total of 57 vocational and 239 college preparatory boys. In addition, the total for all high school boys included 50 boys taking a mixed curriculum. This group of boys was composed of 13 ninth grade boys, 7 tenth grade boys, 16 eleventh grade boys, and 14 twelfth grade boys. The total number of boys in the study was 343.
The Instruments

Modified versions of three attitude scales, the Index of Adjustment and Values, [Bills, undated (b) pp. 32-34], the JIM Scale [Frymier, 1965 (a)], and the Occupational Aspiration Scale (Haller and Miller, 1963, pp. 110-112) were given to the students. A description of each of the instruments follows.

Index of Adjustment and Values

A modification of the high school form of the Index of Adjustment and Values was given. In its original form, this instrument consisted of a list of thirty-seven adjectives. Next to the adjectives were three columns with blanks next to each word under each column. Students were given the following instructions:

[Bills, undated (b), pp. 32-33]

Take each term separately and apply it to yourself by completing the following sentence

"I AM A (AN) __________________ PERSON"

The first word in the list is jolly, so you would substitute this term in the above sentence. It would read--I am a jolly person.

Students were then requested to respond in Column I to "how much of the time this statement is like you" [Bills, undated (b), p. 32] and rate themselves on a five-point scale from "seldom" to "most of the time." This column yielded the "self" score.

In Column II, students were asked to respond to the way they felt about themselves as described in Column I. The five-point scale ranged from strong dislike to strong liking. This column yielded a "self-acceptance" score.
Column III dealt with the "ideal-self." In this column the student was asked to use each term to complete the following sentence:

[Hills, undated (b), p. 32]

"I WOULD LIKE TO BE A (AN)__________________PERSON."

The student was then asked to decide how much of the time this trait would be characteristic of him and rate himself from "seldom" to "most of the time." Students were instructed to mark all three columns for one word before going to the next one.

In the first year of the evaluation at Hudson, the High School Form was given in its original form to a pilot group. Analysis of student responses indicated that many had difficulty making the rather fine distinctions required on the five-point scale, so the three-point scale of the Junior High Form was substituted. It was also found that students tended, in spite of instructions to the contrary, to mark one column for all words before going to the next column. Many students also found it easy to rapidly mark all words the same. In addition, scoring so many of the tests by hand proved quite time consuming. Finally, the sample word "jolly," evoked many snickers among the students.

With these difficulties in mind, a new form to be used with a machine scorables answer sheet was designed to eliminate some of these problems. The revised form asks students to mark all of the thirty-seven terms from the High School Form on a three-point scale once, before going back and marking them again with different instructions. Since the answer sheet is numbered across rather than up and down, it is more difficult for students to establish a
response set. In addition the sample word was changed from "jolly" to "satisfied."

Instructions for the "self" section of the revised form are as follows: [Cochran, 1966 (a), pp. 1-2]

Take terms 1-37 given on the next page separately and apply them to yourself by completing the following sentence:

I am a (an)____________________person.

Turn the page and look at the list of terms. Notice the sample word, "Satisfied," at the top of the list. If you would substitute this term in the above sentence it would read "I am a satisfied person."

You will then decide how much of the time this statement is like you and indicate your choice by darkening the correct number on the accompanying answer sheet. Do not mark the word, "Satisfied."

Mark the answer sheet:
"1" If, most of the time, I am like this.
"2" If, about of the time, I am like this.
"3" If, hardly ever, I am like this.

For example, for the word "Satisfied", if you had darkened Space "1" on the answer sheet, it would mean "Most of the time," I am a satisfied person.

Remember: Make broad dark marks that completely fill the bracket around the number. Do not mark beyond the lines. Completely erase any marks you wish to delete. Use only a number 2 pencil. Mark only ONE answer for each question. CAUTION - Notice that the question numbers go across the answer sheet rather than down.

Begin with the word "Active". When you have answered questions 1 - 37 turn the page and read the directions for Part II.

Instructions for the revised "self-acceptance" section are as follows:

You will now answer questions 38 - 74. Use one of the statements given below to tell how you feel about yourself on terms 38 - 74.
Mark the answer sheet:
"1" If, I like being as I am in this respect.
"2" If, I neither like nor dislike being as I am in this respect.
"3" If, I like being as I am in this respect.

Indicate your choice for the words below in the same manner as you did for words 1 - 37. For example, for the word "Satisfied" if you darkened space "1" on the answer sheet, it would mean "I like being as Satisfied as I am."

Now complete questions 38 - 74 using the words below. Begin with the word "Active". When you have completed questions 38 - 74 turn the page and read the directions for Part III.

For completion of the third section, the "ideal-self", students were told the following:

Using the same term, "Satisfied", complete the following sentence.

I would like to be a (an) ___________ person.

Then decide how much of the time you would like this to be an example of you and rate yourself on the following scale:

Mark the answer sheet:
"1" If, most of the time, I would like this to be me.
"2" If, about 1/2 the time, I would like this to be me.
"3" If, hardly ever, I would like this to be me.

For example, for the word "Satisfied", if you had darkened space "1" on the answer sheet it would mean, "Most of the time, I would like to be this kind of person."

Now complete questions 75 - 111 using the words below. Begin with the word "Active".

The Index of Adjustment and Values was scored by assigning a weight of three to each mark in position one, a weight of two to each mark in position two, and a weight of one to each mark in position three. Each section was totaled separately yielding scores on "self", "self-acceptance", and "ideal-self", respectively. Next, let us look at the JIM Scale.
The JIM Scale is an instrument which attempts to determine school motivation. It consists of a list of eighty statements to which a student is asked to respond by expressing slight or strong support or slight or strong opposition. Fifty of the eighty scale items are scored, the remainder serve as distractors. An attempt is made not to disclose the actual purpose of the test to the students. Following are the instructions for Form F of the JIM Scale: [Frymier, 1965 (a) p. 1]

We are trying to find out how students think and feel about a number of important topics. In order to do this, we would like to ask you to answer some questions. This is not an intelligence test nor an information test. There are no "right" or "wrong" answers. The best and only correct answer is YOUR PERSONAL OPINION. Whatever your answer is, there will be many who agree and many who disagree. What we really want to know is HOW YOU FEEL about each statement.

Read each statement very carefully, and then indicate your agreement or disagreement by marking it, according to the following scale, in the appropriate space beside each statement.

+1 slight support, agreement -1 slight opposition, disagreement
+2 strong support, agreement -2 strong opposition, disagreement

You may have as much time as you need, so read each statement very carefully and answer it the best way you can.

As with the Index of Adjustment and Values, certain modifications were made in the instructions to facilitate the use of machine scorable answer sheets. Students in this study were given the following instructions: [Cochran, 1966, (b), p. 1]

We are trying to find out how students think and feel about a number of important topics. In order to do this, we would like to ask you to answer some questions. This is not an intelligence test nor an information test. There are no "right" or "wrong" answers. The best and only correct answer
is YOUR PERSONAL OPINION. Whatever your answer is, there will be many who agree and many who disagree. What we really want to know is HOW YOU FEEL about each statement.

Do not mark on the test booklet. Find the area labeled Test 7 on the left side of the answer sheet. You will make all marks for this test in the area marked Test 7 on the answer sheet.

Read each statement very carefully, and then indicate your agreement or disagreement by marking it, according to the following scale, in the appropriate space on the answer sheet.

1 - slight support, agreement
2 - strong support, agreement
3 - slight opposition, disagreement
4 - strong opposition, disagreement

You may have as much time as you need, so read each statement very carefully and answer it the best way you can.

Scores on the JIM Scale were determined by first eliminating from consideration the thirty non-scored items. Marks in response position one were assigned a weight of plus one, those in response position two were assigned a weight of two. The weighted marks in these two response positions were totaled to determine the total of the plus values.

Next, marks in response position three were assigned a weight of minus one, those in response position four were assigned a value of minus two. The weighted responses in positions three and four were totaled to determine the total of the minus value.

After the totals of the plus and minus values were determined, the two were added together algebraically. The sign of this total was reversed and 100 was added, thus giving a total JIM Scale score. Next, the Occupational Aspiration Scale will be discussed.
**Occupational Aspiration Scale**

The **Occupational Aspiration Scale** is an eight-item multiple choice instrument. It asks for both short and long-range realistic and idealistic expressions of level of occupational aspiration. Each of the four combinations are assessed twice. The occupational choices for each item are used only once in the questionnaire and come from the NORC study of occupational prestige (1947, pp. 3-13). Haller and Miller divided the prestige rankings of the NORC study into eight sections of jobs based upon rank from high to low. They then used one job from each of these divisions as an alternative response for each question. Responses were scored from 0 to 9. A 9 indicated that a job from among the highest eight prestige occupations was chosen, a 0 indicated that one of the lowest eight occupations had been chosen. An individual's score for the whole questionnaire may then range from 0 to 72.

The only modification in this instrument from the original was again to facilitate machine scoring. Students were given instructions on how to use the answer sheets rather than the test booklet.

**Data Collection**

In January, 1968, the **Index of Adjustment and Values, JIM Scale, Occupational Aspiration Scale**, and the other instruments used in the evaluation of the vocational program were administered in English classes to all students in grades nine through twelve.
Prior to the administration of the instruments, the researcher met with all teachers who were to give the tests in order to review the procedures to be used so that variation in testing was minimized. Teachers were given a three week span to complete the testing. Since these three tests were given as part of a larger battery of seven tests being used to evaluate the vocational program in that school, a total of three or four class periods was used to complete the testing. In most instances, the tests were given to students within a period of one week, and no two of the three tests used in this study were given on the same day.

**Hypotheses**

The following null hypotheses were tested:

1. That the self-concepts (self, self-acceptance, and ideal self-concept) are not significantly correlated with **school motivation** in the following groups of students:

   (A) All high school boys in grades nine through twelve
   (B) All vocational boys in grades nine through twelve
   (C) All college preparatory boys in grades nine through twelve
   (D) Ninth grade vocational boys
   (E) Ninth grade college preparatory boys
   (F) Twelfth grade vocational boys
   (G) Twelfth grade college preparatory boys
2. That the self-concepts (self, self-acceptance, and ideal self-concept) are not significantly correlated with level of occupational aspiration in the following groups of students:

(A) All high school boys in grades nine through twelve
(B) All vocational boys in grades nine through twelve
(C) All college preparatory boys in grades nine through twelve
(D) Ninth grade vocational boys
(E) Ninth grade college preparatory boys
(F) Twelfth grade vocational boys
(G) Twelfth grade college preparatory boys

3. That school motivation and level of occupational aspiration are not significantly correlated in the following groups of students:

(A) All high school boys in grades nine through twelve
(B) All vocational boys in grades nine through twelve
(C) All college preparatory boys in grades nine through twelve
(D) Ninth grade vocational boys
(E) Ninth grade college preparatory boys
(F) Twelfth grade vocational boys
(G) Twelfth grade college preparatory boys

4. That there are no significant differences in the relationship between the self-concept, school motivation, and level of occupational aspiration for boys at different grade levels and different curricula.
(A) That there is no significant difference in the correlation of the self-concepts (the self, self-acceptance, and ideal self-concept) and school motivation between the following groups of students:
1. All vocational boys in grades nine through twelve versus all college preparatory boys in grades nine through twelve
2. Ninth grade vocational boys versus ninth grade college preparatory boys
3. Twelfth grade vocational boys versus twelfth grade college preparatory boys
4. Ninth grade vocational boys versus twelfth grade vocational boys
5. Ninth grade college preparatory boys versus twelfth grade college preparatory boys

(B) That there is no significant difference in the correlation of the self-concepts (the self, self-acceptance, and ideal self-concept) and level of occupational aspiration between the following groups of students:
1. All vocational boys in grades nine through twelve versus all college preparatory boys in grades nine through twelve
2. Ninth grade vocational boys versus ninth grade college preparatory boys
3. Twelfth grade vocational boys versus twelfth grade college preparatory boys
4. Ninth grade vocational boys versus twelfth grade vocational boys
5. Ninth grade college preparatory boys versus twelfth grade college preparatory boys

(C) That there is no significant difference in the correlation of school motivation and level of occupational aspiration between the following groups of students:
1. All vocational boys in grades nine through twelve versus all college preparatory boys in grades nine through twelve
2. Ninth grade vocational boys versus ninth grade college preparatory boys
3. Twelfth grade vocational boys versus twelfth grade college preparatory boys
4. Ninth grade vocational boys versus twelfth grade vocational boys
5. Ninth grade college preparatory boys versus twelfth grade college preparatory boys

Statistical Analysis of Data

A test of correlation (Pearson) was used to determine the interrelationship of the three self-concept factors (self-esteem, self-acceptance, and ideal self-concept) to motivation toward school and to level of occupational aspiration both for all high school boys
and for all ninth and twelfth grade boys separated into vocational and college preparatory curricula. (Hypotheses 1 and 2) In addition, the same formula was used in determining the relationship of school motivation to occupational aspiration for the above groups. (Hypothesis 3)

The formula used in computing the Pearson was the so-called "raw score" or "machine" formula. This formula is as follows: (Downie & Heath, 1965, p. 85)

\[ r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{(N\sum X^2 - (\sum X)^2)(N\sum Y^2 - (\sum Y)^2)}} \]

where \( N \) = number of pairs of scores

\( X = \) the first variable

\( Y = \) the second variable

After the correlations were computed, the significance level of \( r \) was tested in order to either accept or reject the null hypotheses. A table based upon the following formula for the \( t \) ratio for testing the significance of a coefficient of correlation was used. (Guilford, 1965, p. 163)

\[ t = \frac{r\sqrt{N - 2}}{\sqrt{1 - r^2}} \]

in which \( t = \) \( t \) ratio

\( r = \) correlation coefficient

\( N = \) number of pairs used in computing \( r \)
Next, hypotheses 4A, 4B, and 4C were tested by first transforming the correlation coefficients of the two samples into Fisher's Z statistic utilizing the appropriate statistical table. The standard error of the difference in the two Z's was computed using the following formula:

\[
S_{DZ} = \sqrt{\frac{1}{N_1 - 3} + \frac{1}{N_2 - 3}}
\]

where \( S_{DZ} \) = standard error of the difference between two Z's

\( N_1 \) = Number in the first sample

\( N_2 \) = Number in the second sample

Next the z score was computed and tested for significance using the following formula:

\[
z = \frac{Z_1 - Z_2}{S_{DZ}}
\]

where \( z \) = z score

\( Z_1 \) & \( Z_2 \) = Fisher's Z transformations

\( S_{DZ} \) = standard error of the difference for Fisher's Z's

In all instances where a test of significance between groups was employed a two-tailed test was used. In addition, a difference was considered significant if it met or exceeded the .05 confidence level.
Summary

In this chapter, the setting of the study, the sample of students, the instruments used, the data collection methods, the hypotheses, and the statistical analysis of the data were discussed. In the next chapter, the findings will be discussed.
CHAPTER IV
FINDINGS

Introduction

In this chapter, the findings of the study will be discussed. First, hypotheses 1, 2, and 3 which deal with the correlations of self-concept with school motivation, self-concept with level of occupational aspiration, and school motivation with level of occupational aspiration will be discussed. Next, hypotheses 4A, 4B, and 4C which compare the correlations between self-concept and school motivation, self-concept and level of occupational aspiration, and school motivation and level of occupational aspiration of various subgroups will be considered. Finally, a brief discussion of the findings will be held. Let us now look at the findings.

Results by Hypotheses

Hypothesis 1

That the self-concepts (self, self-acceptance, and ideal self) are not significantly correlated with school motivation in the following groups of students:

(A) All high school boys in grades nine through twelve
(B) All vocational boys in grade nine through twelve
(C) All college preparatory boys in grades nine through twelve
(D) Ninth grade vocational boys
(E) Ninth grade college preparatory boys
(F) Twelfth grade vocational boys
(G) Twelfth grade college preparatory boys

Self with School Motivation

Table 1 shows the results of hypothesis 1. When the correlation between the "self" scale of the Index of Adjustment and Values and the score of the JIM Scale were computed, the correlations for the various subgroups ranged from -.02 (ninth grade vocational boys) to .28 (twelfth grade vocational boys). Only the correlation between "self" and school motivation for all high school boys (r = .20) was significant (p = .01), and that, according to Guilford (1956, p. 145) was low. Thus the null hypothesis of no significant relationship between the "self" and school motivation was confirmed for all groups except all high school boys.

Self-Acceptance with School Motivation

Correlations between the "self-acceptance" scale scores of the Index of Adjustment and Values and the JIM Scale scores were even lower, ranging from -.04 (ninth grade college preparatory boys) to .18 (all vocational boys and twelfth grade college preparatory boys). None of these correlations were significant, thus again confirming the null hypothesis of no significant correlation.
TABLE 1
CORRELATIONS OF ASPECTS OF THE SELF-CONCEPT
WITH SCHOOL MOTIVATION

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>I Self</th>
<th>II Self Acceptance</th>
<th>III Ideal Self</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. All high school boys 9-12</td>
<td>343</td>
<td>.20a</td>
<td>.08</td>
<td>.18a</td>
</tr>
<tr>
<td>B. All vocational boys 9-12</td>
<td>56</td>
<td>.10</td>
<td>.18</td>
<td>-.12</td>
</tr>
<tr>
<td>C. All college preparatory boys 9-12</td>
<td>237</td>
<td>.12</td>
<td>.06</td>
<td>.17a</td>
</tr>
<tr>
<td>D. All ninth grade vocational boys</td>
<td>24</td>
<td>-.02</td>
<td>.17</td>
<td>-.19</td>
</tr>
<tr>
<td>E. All ninth grade college preparatory boys</td>
<td>72</td>
<td>.05</td>
<td>-.04</td>
<td>.08</td>
</tr>
<tr>
<td>F. All twelfth grade vocational boys</td>
<td>11</td>
<td>.28</td>
<td>.04</td>
<td>.76a</td>
</tr>
<tr>
<td>G. All twelfth grade college preparatory boys</td>
<td>37</td>
<td>.15</td>
<td>.18</td>
<td>.19</td>
</tr>
</tbody>
</table>

a = Significant at .01 level
b = Significant at .05 level

Ideal Self with School Motivation

Several groups demonstrated significant correlations between "ideal self" scores and scores on the JIM Scale. Significant correlations (p = .01) were found for all high school boys (r = .18), all college preparatory boys (r = .17) and all twelfth grade vocational boys (r = .76). Two of the significant correlations (all high school boys and all college preparatory boys), although significant, were
slight (Guilford, 1956, p. 145). The third, that of twelfth grade vocational boys, was high (Guilford, 1956, p. 145). The range of correlations was exceptionally wide, from -.19 (ninth grade vocational boys) to .76 (twelfth grade vocational boys). The null hypothesis of no significant correlation between "ideal self" and school motivation was rejected for all high school boys, all college preparatory boys, and twelfth grade vocational boys. It was confirmed for the other groups.

Hypothesis 2

That the self-concepts (self, self-acceptance, and ideal self) are not significantly correlated with level of occupational aspiration in the following groups of students.

(A) All high school boys in grades nine through twelve
(B) All vocational boys in grades nine through twelve
(C) All college preparatory boys in grades nine through twelve
(D) Ninth grade vocational boys
(E) Ninth grade college preparatory boys
(F) Twelfth grade vocational boys
(G) Twelfth grade college preparatory boys

Self with Level of Occupational Aspiration

Table 2 contains the data for hypothesis 2. Correlations between the "self" score on the Index of Adjustment and Values-and level of occupational aspiration ranged from -.10 (all vocational boys) to .39 (all twelfth grade college preparatory boys). Two
### TABLE 2

CORRELATIONS OF ASPECTS OF THE SELF-CONCEPT WITH LEVEL OF OCCUPATIONAL ASPIRATION

<table>
<thead>
<tr>
<th>Groups</th>
<th>Level of Occupational Aspiration Correlation to:</th>
<th>I Self</th>
<th>II Self Acceptance</th>
<th>III Ideal Self</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. All high school boys 9-12</td>
<td>343</td>
<td>.19a</td>
<td>.13b</td>
<td>.15a</td>
</tr>
<tr>
<td>B. All vocational boys 9-12</td>
<td>56</td>
<td>-.10</td>
<td>-.05</td>
<td>.01</td>
</tr>
<tr>
<td>C. All college preparatory boys 9-12</td>
<td>237</td>
<td>.18a</td>
<td>.21a</td>
<td>.06</td>
</tr>
<tr>
<td>D. All ninth grade vocational boys</td>
<td>24</td>
<td>.29</td>
<td>.01</td>
<td>.11</td>
</tr>
<tr>
<td>E. All ninth grade college preparatory boys</td>
<td>72</td>
<td>.26b</td>
<td>.16</td>
<td>-.05</td>
</tr>
<tr>
<td>F. All twelfth grade vocational boys</td>
<td>11</td>
<td>.04</td>
<td>.02</td>
<td>-.02</td>
</tr>
<tr>
<td>G. All twelfth grade college preparatory boys</td>
<td>37</td>
<td>.39b</td>
<td>.37b</td>
<td>.38b</td>
</tr>
</tbody>
</table>

* a = Significant at .01 level
* b = Significant at .05 level

correlations (all high school boys, r = .19; and all college preparatory boys, r = .18), although considered slight by Guilford (1956, p. 145) were significant at the .01 level of confidence. Two more correlations, (ninth grade college preparatory boys, r = .26 and twelfth grade college preparatory boys, r = .39), were significant at the .05 level of confidence. The null hypothesis of no significant
correlations between "self" and LOA was thus rejected for all high school boys, all college preparatory boys, and ninth and twelfth grade college preparatory boys.

Self-Acceptance with Level of Occupational Aspiration

Correlations between "self-acceptance" and level of occupational aspiration ranged from -.05 (all vocational boys) to .37 (twelfth grade college preparatory boys). A low correlation (r = .21) existed between "self-acceptance" and LOA for all college preparatory boys which is significant at the .01 level of confidence. Two other correlations (all high school boys, r = .13; and all twelfth grade college preparatory boys, r = .37) were significant at the .05 level of confidence. Thus, the null hypothesis of no significant difference was rejected for all high school boys, all college preparatory boys, and twelfth grade college preparatory boys, and was confirmed for the other subgroups.

Ideal Self with Level of Occupational Aspiration

The range among subgroups for the correlations between "ideal self" and LOA varied from -.05 (ninth grade college preparatory boys) and .38 (twelfth grade college preparatory boys). One correlation, all high school boys (r = .15) though slight (Guilford, 1956, p. 145) was significant at the .01 level of confidence. Another, twelfth grade college preparatory boys (r = .38) was significant at the .05 level of confidence. The null hypothesis of no
significant correlations was confirmed except for all high school boys and all twelfth grade college preparatory boys.

Hypothesis 3

That school motivation and level of occupational aspiration are not significantly correlated in the following groups of students:

(A) All high school boys in grades nine through twelve
(B) All vocational boys in grades nine through twelve
(C) All college preparatory boys in grades nine through twelve
(D) Ninth grade vocational boys
(E) Ninth grade college preparatory boys
(F) Twelfth grade vocational boys
(G) Twelfth grade college preparatory boys

TABLE 3
CORRELATION OF SCHOOL MOTIVATION WITH LEVEL OF OCCUPATIONAL ASPIRATION

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. All high school boys 9-12</td>
<td>343</td>
<td>-.02</td>
</tr>
<tr>
<td>B. All vocational boys 9-12</td>
<td>56</td>
<td>-.18</td>
</tr>
<tr>
<td>C. All college preparatory boys 9-12</td>
<td>237</td>
<td>.11</td>
</tr>
<tr>
<td>D. All ninth grade vocational boys</td>
<td>24</td>
<td>-.13</td>
</tr>
<tr>
<td>E. All ninth grade college preparatory boys</td>
<td>72</td>
<td>.15</td>
</tr>
<tr>
<td>F. All twelfth grade vocational boys</td>
<td>11</td>
<td>-.28</td>
</tr>
<tr>
<td>G. All twelfth grade college preparatory boys</td>
<td>37</td>
<td>.20</td>
</tr>
</tbody>
</table>
School Motivation with Level of Occupational Aspiration

The correlations of JIM Scale scores with Occupational Aspiration Scale scores ranged from -.28 (twelfth grade vocational boys) to .20 (twelfth grade college preparatory boys). None of the correlations were significant, thus confirming the null hypothesis.

Hypothesis 4A

That there is no significant difference in the correlation of the self-concepts (the self, self-acceptance, and ideal self) and school motivation between the following groups of students:

1. All vocational boys in grades nine through twelve versus all college preparatory boys in grades nine through twelve
2. Ninth grade vocational boys versus ninth grade college preparatory boys
3. Twelfth grade vocational boys versus twelfth grade college preparatory boys
4. Ninth grade vocational boys versus twelfth grade vocational boys
5. Ninth grade college preparatory boys versus twelfth grade college preparatory boys

Self-Concept with School Motivation

Table 4 compares the correlations of the self-concept scores with school motivation between the various subgroups. When the correlations of the subgroups were compared to determine if there were significant differences between them, only two such differences appeared.
A comparison of the correlations of aspects of the self-concept with school motivation by grade and curriculum

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>I Self</th>
<th>II Self Acceptance</th>
<th>III Ideal Self</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocational boys 9-12 versus</td>
<td>56</td>
<td>.10</td>
<td>.18</td>
<td>-.12</td>
</tr>
<tr>
<td>College preparatory boys 9-12</td>
<td>237</td>
<td>.12</td>
<td>.06</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.13</td>
<td>.79</td>
<td>-1.91</td>
</tr>
<tr>
<td>Ninth grade vocational boys</td>
<td>24</td>
<td>-.02</td>
<td>.17</td>
<td>-.19</td>
</tr>
<tr>
<td>Ninth grade college preparatory boys</td>
<td>72</td>
<td>.05</td>
<td>.04</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.28</td>
<td>.84</td>
<td>-1.08</td>
</tr>
<tr>
<td>Twelfth grade vocational boys</td>
<td>11</td>
<td>.28</td>
<td>.04</td>
<td>.76</td>
</tr>
<tr>
<td>Twelfth grade college preparatory boys</td>
<td>37</td>
<td>.15</td>
<td>-.36</td>
<td>.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.36</td>
<td>-.36</td>
<td>2.09b</td>
</tr>
<tr>
<td>Ninth grade vocational boys</td>
<td>24</td>
<td>-.02</td>
<td>.17</td>
<td>-.19</td>
</tr>
<tr>
<td>Twelfth grade vocational boys</td>
<td>11</td>
<td>.28</td>
<td>.04</td>
<td>.76</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.75</td>
<td>.32</td>
<td>-2.89a</td>
</tr>
<tr>
<td>Ninth grade college preparatory boys</td>
<td>72</td>
<td>.05</td>
<td>-.04</td>
<td>.08</td>
</tr>
<tr>
<td>Twelfth grade college preparatory boys</td>
<td>37</td>
<td>.15</td>
<td>.18</td>
<td>.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.48</td>
<td>-1.05</td>
<td>-.52</td>
</tr>
</tbody>
</table>

\[a = \text{Significant at .01 level} \]
\[b = \text{Significant at .05 level} \]

On the relationship of "ideal self" to school motivation, the scores of twelfth grade vocational versus twelfth grade college preparatory boys were significantly different at the .05 level.
The correlations on these same two variables for ninth versus twelfth grade vocational boys were significant at the .01 level of confidence. Thus the null hypothesis of no significant differences in the correlations of self-concept and school motivation was confirmed except for twelfth vocational versus twelfth college preparatory boys and ninth grade vocational boys versus twelfth grade vocational boys.

Hypothesis 4B

That there is no significant difference in the correlation of the self-concepts (the self, self-acceptance, ideal self) and level of occupational aspiration between the following groups of students:

1. All vocational boys in grades nine through twelve versus all college preparatory boys in grades nine through twelve

2. Ninth grade vocational boys versus ninth grade college preparatory boys

3. Twelfth grade vocational boys versus twelfth grade college preparatory boys

4. Ninth grade vocational boys versus twelfth grade vocational boys

5. Ninth grade college preparatory boys versus twelfth grade college preparatory boys

Self-Concept with Level of Occupational Aspiration

Table 5 compares correlations of the self-concept scores with level of occupational aspiration between the various subgroups.
TABLE 5
A COMPARISON OF THE CORRELATIONS OF ASPECTS OF THE SELF-CONCEPT WITH LEVEL OF OCCUPATIONAL ASPIRATION BY GRADE AND CURRICULUM

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Level of Occupational Aspiration Correlation to:</th>
<th>I</th>
<th>II Self</th>
<th>III Ideal</th>
</tr>
</thead>
<tbody>
<tr>
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<td>56</td>
<td></td>
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<td>.01</td>
</tr>
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<td>.21</td>
<td>.06</td>
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<tr>
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<td></td>
<td>.26</td>
<td>.16</td>
<td>-.05</td>
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<tr>
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<td>11</td>
<td></td>
<td>.04</td>
<td>.02</td>
<td>-.02</td>
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<tr>
<td>z</td>
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<td></td>
<td>.39</td>
<td>.37</td>
<td>.38</td>
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<td>24</td>
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<td>.01</td>
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<tr>
<td>z</td>
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<td></td>
<td>.04</td>
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<tr>
<td>Ninth grade college preparatory boys vs Twelfth grade college preparatory boys</td>
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<td></td>
<td>.26</td>
<td>.16</td>
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<tr>
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<td>37</td>
<td></td>
<td>.39</td>
<td>.37</td>
<td>.38</td>
</tr>
</tbody>
</table>

a = Significant at .01 level
b = Significant at .05 level

Only one set of correlations was found to be significantly different.

When the correlations between "ideal self" and LOA were compared for
ninth grade and twelfth grade college preparatory boys, they were significantly different at the .05 level of confidence. Thus, the null hypothesis that there were no significant differences between groups was confirmed except for the correlations of ninth and twelfth grade boys between ideal self and level of occupational aspiration.

_Hypothesis 4c_

That there is no significant difference in the correlation of school motivation and level of occupational aspiration between the following groups of students:

1. All vocational boys in grades nine through twelve versus all college preparatory boys in grades nine through twelve
2. Ninth grade vocational boys versus ninth grade college preparatory boys
3. Twelfth grade vocational boys versus twelfth grade college preparatory boys
4. Ninth grade vocational boys versus twelfth grade vocational boys
5. Ninth grade college preparatory boys versus twelfth grade college preparatory boys

School Motivation with Level of Occupational Aspiration

Table 6 compares the correlations of the scores on the JIM Scale with those on the Occupational Aspiration Scale. In no instance was there a significant difference in the correlations
between the various subgroups, thus the null hypothesis of no
difference is confirmed.

TABLE 6
A COMPARISON OF THE CORRELATION OF SCHOOL MOTIVATION
WITH LEVEL OF OCCUPATIONAL ASPIRATION
BY GRADE AND CURRICULUM

<table>
<thead>
<tr>
<th>Groups</th>
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<th>r</th>
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<tr>
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<td>Twelfth grade college preparatory boys z</td>
<td>11</td>
<td>-.28</td>
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<td>Ninth grade vocational boys versus</td>
<td>24</td>
<td>-.13</td>
</tr>
<tr>
<td>Twelfth grade vocational boys z</td>
<td>11</td>
<td>-.28</td>
</tr>
<tr>
<td>Ninth grade college preparatory boys versus</td>
<td>37</td>
<td>-.24</td>
</tr>
</tbody>
</table>

Discussion of Findings

Self-Concept with School Motivation

The findings that only the "self" and "ideal self" scales on
the Index of Adjustment and Values are significantly correlated with
school motivation suggest that how accepting one is of himself is
unimportant in determining motivation toward school. It appears that it is only how one sees himself, and how one would like to be which are correlated with school motivation; and this correlation, although highly significant statistically is really quite low. These findings are generally consistent with those of Shaw, Edson, and Bell (1960), Shaw and Alves (1963), Bay (1961), and Wells (1965). The still-experimental nature of the JIM Scale, as discussed in Chapter II, makes it imperative that results using this instrument be interpreted with caution.

It is probable that a self-concept measure designed specifically to determine the student's self-concept of ability to do school work would correlate much more highly with JIM Scale scores. The instruments developed by Brookover (1962), for example, might be useful for this purpose.

Self-Concept with Level of Occupational Aspiration

The finding that, for the total group of boys, level of occupational aspiration has a low, but significant correlation with self, self-acceptance, and ideal self supports previous research in this area. Vocational development theories such as Super (1953); Holland (1959); Field, Kehas, and Tiedeman (1963); and Stefflre (1966) all contend that vocational choice is, to a great degree, the implementation of the self-concept.

Perhaps the reason that the correlations are not higher is explained by the findings of Rosenberg (1965, pp. 230-239). Rosenberg found that individuals with low self-esteem were as likely
as those with high self-esteem to want to get ahead, but less likely
to expect to get ahead. Since half the items on the Occupational
Aspiration Scale ask what the individual would like to do if he had
unlimited choice, and half ask what he expects to do; it is possible
that the OAS score of students with low self-esteem might be quite
ambiguous.

School Motivation with Level of
Occupational Aspiration

The fact that there was no significant relationship between
school motivation and LOA was rather surprising. Even though pre­
vious studies of the relationship had not been done, postulations
by Haller (1963, p. 14) and Farquhar and Payne (1963, p. 245) made
such a relationship seem feasible. The relationship of the two
variables had an almost zero correlation for the whole group, and
had a wide range of both plus and minus correlations for the
various subgroups.

Self-Concept with School Motivation

The "ideal self-concept" of twelfth grade vocational boys
had an exceptionally high (r = .76) correlation with school motiva­
tion when compared to the other groups. This correlation was signif­
icantly higher than that of both twelfth grade college preparatory
boys and of ninth grade vocational boys. One possible explanation
of the finding is that this group is much more eager to attain their
"ideal self-concept" through school achievement. It is also possible,
however, that they have lowered their "ideal self-concept" to cor­
respond with low school motivation. The extremely small sample
size (N = 11) of this subgroup makes any generalization of this finding extremely hazardous, in spite of its statistical significance.

**Self-Concept with Level of Occupational Aspiration**

Only one pair of subgroups was found which differed significantly in the correlation between self-concept and LOA. Ninth and twelfth grade college preparatory boys had significantly different correlations between their "ideal self-concept" and LOA. It is conceivable that the more advanced college preparatory boys have developed a LOA more in line with their "ideal self-concept" or vice-versa. It appears that, at the ninth grade level, the boys see little relationship between how they would like to be and an expression of this in their level of occupational aspiration.

**Summary**

The findings of this study by hypotheses have been given. In addition, a discussion of the findings was presented. In the next chapter, the summary and conclusions will be given.
CHAPTER V

SUMMARY AND CONCLUSIONS

Introduction

This research has considered the relationship of the self-concept to school motivation and level of occupational aspiration. The final chapter of this investigation will consist of a review of the study, conclusions derived from the findings, and recommendations for further research.

Review of the Study

In the first chapter it was pointed out that, if we are to successfully educate all students, more knowledge is needed about the relationships of the self-concept, school motivation, and level of occupational aspiration of students. Furthermore, it was suggested that such a study was needed both to test current self-theories and to provide information needed for practical applications. Phenomenological theory was cited to provide the conceptual framework for such a study. Finally, the limitation of a sample consisting only of boys from a suburban high school was pointed out.

In the second chapter, literature was cited to clarify the constructs of self-concept, school motivation, and level of
occupational aspiration. In addition, literature was reviewed which suggested the possibility of a relationship between the self-concept and school motivation, the self-concept and level of occupational aspiration, and school motivation and level of occupational aspiration. Finally, literature relating to the instruments to be used in this study was reviewed. Evidence was presented to show that the Bills' *Index of Adjustment and Values* and the Occupational Aspiration Scale were reliable and valid instruments. Evidence concerning the reliability and validity of the JIM Scale was considerably less clear cut and suggested that findings of studies using it must be interpreted with caution.

In the third chapter, the procedures used in the study were explained. The three instruments, after being modified for machine scoring, were administered by teachers in January along with several other instruments to all students in grades nine through twelve at Hudson High School in Hudson, Ohio. Since the validity of the Occupational Aspiration Scale has not been established for girls, only the results for boys were used in this study. Pearson correlation coefficients between the five variables were computed for all boys in the school and for six subgroups. The correlation coefficients were then tested for significance. Finally, a comparison was made of the correlation coefficients between the various subgroups and tested for significance.

The fourth chapter reported the findings of the research. The relationships of the self-concept to school motivation and level of occupational aspiration for all boys in high school and
for various subgroups were studied. Let us first examine the relationships found between self-concept, school motivation, and level of occupational aspiration for all high school boys. A summary of these relationships follow:

1. A. How one sees himself (self) is significantly related to school motivation (r = .20, p = .01).
   B. How accepting one is of himself (self-acceptance) is not significantly related to school motivation.
   C. How one would like to be (ideal self) is significantly related to school motivation (r = .18, p = .01).

2. A. How one sees himself (self) is significantly related to LOA (r = .19, p = .01).
   B. How accepting one is of himself (self-acceptance) is significantly related to LOA (r = .13, p = .05).
   C. How one would like to be (ideal self) is significantly related to LOA (r = .15, p = .01).

3. One's school motivation is not significantly related to his level of occupational aspiration.

When the correlations of the various subgroups were compared with each other, three significant differences appeared.

4. A. The correlation between ideal self and LOA were significantly different for:
   (1) Ninth grade versus twelfth grade college preparatory boys.
B. The correlation between ideal self and school motivation were significantly different for:

1. Twelfth grade college preparatory versus twelfth grade vocational boys.
2. Ninth grade vocational versus twelfth grade vocational boys.

When the various subgroups were checked for statistically significant correlations, the following significant relationships appeared.

5. A. How one would like to be (ideal self) is significantly related to school motivation for:

1. All college preparatory boys ($r = .17$, $p = .01$)
2. Twelfth grade vocational boys ($r = .76$, $p = .01$)

B. How one sees himself (self) is significantly related to LOA for:

1. All college preparatory boys ($r = .18$, $p = .01$)
2. Twelfth grade college preparatory boys ($r = .39$, $p = .05$)
3. Ninth grade college preparatory boys ($r = .26$, $p = .05$)

C. How accepting one is of himself (self-acceptance) is related to LOA for:

1. All college preparatory boys ($r = .21$, $p = .01$)
2. Twelfth grade college preparatory boys ($r = .37$, $p = .05$)
D. How one would like to be (ideal self) is significantly related to LOA for:

(1) Twelfth grade college preparatory boys \( (r = .38, p = .05) \)

**Conclusions**

The following are some conclusions derived from the findings of this study.

1. The fact that slight, but significant, correlations exist between the self and ideal self scores and school motivation for all high school boys suggests that how one sees himself (self) and how one would like to be (ideal self) are somewhat related to the individual's school motivation. How accepting a person is of himself (self-acceptance) is not related to school motivation. No cause and effect relationship can be determined from this study, however. The relationship between these variables as measured by the Index of Adjustment and Values and the JIM Scale are quite low, however. This suggests that factors other than those measured by the two tests are involved. It is conceivable that a more specific test of the self-concept as it relates to school ability would yield higher correlations. It is also possible that another test of motivation would alter the results.

2. Significant relationships were found between all three aspects of the self-concept (self, self-acceptance,
and ideal-self) and level of occupational aspiration for the total group of boys. The fact that these relationships were also low again suggests that other measures of the self-concept and level of occupational aspiration might have yielded somewhat different results. While this finding lends some support to contemporary occupational choice theories based upon the self-concept, it also implies that occupational choice is quite complex as suggested by Stefflre (1967). One might expect that the self-concept upon which occupational choice is based is quite complex and specific. Also, one must conclude that the choice of an occupation is based upon more than the prestige level of that occupation.

3. A desire to attain a high prestige job is not an extension of the desire to do well in school, at least not for boys while they are still in high school. There was no significant correlation in any groups between school motivation and level of occupational aspiration.

4. Only three significant differences in the correlations of variables between the various subgroups were found.

A. The correlation of ideal self-concept with level of occupational aspiration was significantly higher for twelfth grade than ninth grade college preparatory boys. One might hypothesize that, at the ninth grade level, boys see little relationship between what they would like to be
(ideal self) and the expression of this through an appropriate prestige level job. It is conceivable that, at the ninth grade level, boys are not yet aware of, or concerned about, the prestige level of various occupations. By the twelfth grade, boys are aware of the occupational prestige hierarchy and have had time to develop relatively realistic expectations. Also, since the twelfth grade boys are at a point where they are making an educational choice based somewhat on long-term occupational goals, it is logical that they would tend to aspire to those jobs at a level more commensurate with their ideal self-concept.

B. The twelfth grade vocational boys had an extremely high correlation between ideal self-concept and school motivation. This correlation was significantly higher than both ninth grade vocational boys and twelfth grade college preparatory boys. In checking the average scores on these variables (see Appendix A), one finds that both the ideal self-concept and the school motivation of the twelfth grade vocational boys are quite low. With this in mind, one might guess that the reason the correlation for these two variables is so high is that twelfth grade vocational boys tended to have both a low ideal self-concept and low school
motivation. This group of boys certainly seemed to see a very strong relationship between how they wanted to be and their motivation toward school. It is possible that these boys have developed a failure pattern over the period of years in school which has forced them into lowering their conception of what they would like to be so that it is more in line with what they think they can accomplish.

5. In an attempt to look at the findings in a slightly different light, all of the subgroups which had significant correlations between two variables were examined. A. The only two subgroups in which any aspect of the self-concept was related to school motivation were all college preparatory boys and twelfth grade vocational boys. The ideal self-concepts of these groups were significantly correlated with school motivation. Since college preparatory students are usually planning additional education beyond high school, it is reasonable to assume that they see school achievement as a means of implementing their expectations for themselves. It is also likely that the college preparatory students' environment is one that places a great deal of emphasis upon successful school achievement. It is probable that much of the reinforcement which this student receives emphasizes that, if one does well in school he is a worthwhile
individual entitled to high self expectancies, and vice-versa. In many instances the vocational student has been a failure in the academic realm but his expectancies for himself may be based, to a large extent, upon his academic experiences. In this instance, his school motivation appears to be lowered as his ideal self-concept is also depressed.

B. When the relationship between the self score and LOA for the various subgroups was examined, it was found that significant correlations existed for all college preparatory boys, and both ninth and twelfth grade college preparatory boys. There were no significant correlations among vocational students. One possible explanation for this finding is that, after the ninth grade, the vocational students' level of occupational aspiration does not change while that of the college preparatory students does. (Bathory, 1967) Thus, at the ninth grade level, when the students choose to enter the vocational program their LOA becomes essentially frozen. If this happens, changes in the self-concept of the individual are unlikely to be reflected by corresponding changes in his LOA.

C. Self-acceptance was found to be significantly correlated with level of occupational aspiration for all college preparatory boys and twelfth grade college preparatory boys but not for any groups of vocational
boys. The same reasons as given in section 5B above might be offered to explain this finding.

D. A different pattern exists in the correlation between ideal self and level of occupational aspiration. In this instance the scores of twelfth grade college preparatory boys were the only ones which were significantly correlated. It appears that years in school and curriculum influence the relationship which one expressed between his ideal self and his LOA. The twelfth grade college preparatory students have had an opportunity to learn more about both the occupational hierarchy and themselves by the time they reach the twelfth grade. In addition, jobs at the higher end of the prestige hierarchy are still open to most college preparatory students, they are no longer perceived as open to most vocational students. High occupational aspiration represents a realistic expression of ideal self for senior college preparatory students, it does not for vocational students.

Recommendations for Further Research

1. Studies need to be conducted which will attempt to determine what causal relationships exist between the self-concept, school motivation, and occupational aspiration.

2. Additional reliability and validity studies need to be conducted to further perfect the JIM Scale.
3. The prestige ratings of jobs upon which the Occupational Aspiration Scale is based need to be updated.

4. A level of occupational aspiration instrument needs to be developed that is more appropriate for girls.

5. A level of occupational aspiration instrument needs to be developed which will differentiate between hoped for and expected occupational attainment.
APPENDIX

Appendix A

Interrelationship of Self-Concept Scores on Index of Adjustment and Values By Grade and Curriculum

<table>
<thead>
<tr>
<th>Self (I) Correlation to:</th>
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</tr>
</thead>
<tbody>
<tr>
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<td>.55</td>
</tr>
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<td>(c) All college preparatory boys 9-12</td>
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<td>.57</td>
</tr>
<tr>
<td>(d) All ninth grade vocational boys</td>
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<td>.53</td>
</tr>
<tr>
<td>(e) All ninth grade college preparatory boys</td>
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<td>.57</td>
</tr>
<tr>
<td>(f) All twelfth grade vocational boys</td>
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<td>.67</td>
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<table>
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<tr>
<td>(b) All vocational boys 9-12</td>
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<tr>
<td>(c) All college preparatory boys 9-12</td>
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<tr>
<td>(d) All ninth grade vocational boys</td>
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<tr>
<td>(e) All ninth grade college</td>
<td></td>
</tr>
<tr>
<td>preparatory boys</td>
<td></td>
</tr>
<tr>
<td>(f) All twelfth grade vocational boys</td>
<td>11</td>
</tr>
<tr>
<td>(g) All twelfth grade college</td>
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<td>preparatory boys</td>
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</table>

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## Appendix B

Mean Score and Standard Deviation
For Each Group On Each Test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Occupational Aspiration Scale</th>
<th>Index of Adjustment and Values</th>
<th>JIM Scale</th>
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<td>Ideal</td>
<td>Self</td>
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<td>90.87</td>
<td>92.31</td>
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<td>10.61</td>
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<td>S.D. 11.34</td>
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<td>10.24</td>
</tr>
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<td>M 26.36</td>
<td>84.45</td>
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<td></td>
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<td>S.D. 11.78</td>
<td>8.34</td>
<td>10.44</td>
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</tbody>
</table>
Appendix C

Index of Adjustment and Values: High School Form (original)

"SELF" INSTRUCTIONS FOR HSIAV

Robert E. Bills

There is a need for each of us to know more about ourselves, but seldom do we have an opportunity to look at ourselves as we are or as we would like to be. On the next page is a list of terms that to a certain degree describe people. Take each term separately and apply it to yourself by completing the following sentence:

I AM A (AN)________________ PERSON.

The first word in the list is jolly, so you would substitute this term in the above sentence. It would read—I am a jolly person.

INSTRUCTIONS FOR COLUMN I (next page)

Then decide HOW MUCH OF THE TIME this statement is like you and rate yourself on a scale from 1 to 5 according to the following key.

1. Seldom, this is like me.
2. Occasionally, this is like me.
3. About half of the time, this is like me.
4. A good deal of the time, this is like me.
5. Most of the time, this is like me.

EXAMPLE: Beside the term JOLLY, number 2 is inserted to indicate that—occasionally I am a jolly person.

INSTRUCTIONS FOR COLUMN II (next page)

Now go to Column II. Use one of the statements given below to tell HOW YOU FEEL about yourself as described in Column I.

1. I very much dislike being as I am in this respect.
2. I dislike being as I am in this respect.
3. I neither dislike being as I am nor like being as I am in this respect.
4. I like being as I am in this respect.
5. I like very much being as I am in this respect.

You will select the number beside the statement that tells how you feel about the way you are and insert the number in Column II.

EXAMPLE: In Column II beside the term JOLLY, number 1 is inserted to indicate that I dislike very much being as I am in respect to the term, jolly. Note that being as I am always refers to the way you described yourself in Column I.
INSTRUCTIONS FOR COLUMN III (next page)

Finally, go to Column III; using the same term, complete the following sentence.

I WOULD LIKE TO BE A (AN)_________________________ PERSON.

Then decide HOW MUCH OF THE TIME you would like this trait to be characteristic of you and rate yourself on the following five point scale.

1. Seldom, would I like this to be me.
2. Occasionally, I would like this to be me.
3. About half of the time, I would like this to be me.
4. A good deal of the time, I would like this to be me.
5. Most of the time, I would like this to be me.

You will select the number beside the phrase that tells how much of the time you would like to be this kind of person and insert the number in Column III.

EXAMPLE: In Column III beside the term JOLLY, the number 5 is inserted to indicate that most of the time, I would like to be this kind of person.

Start with the word ACTIVE and fill in Column I, II, and III before going on to the next word. There is no time limit. Be honest with yourself so that your description will be a true measure of how you look at yourself.
<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
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<td>a. JOLLY</td>
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<td></td>
</tr>
<tr>
<td>1. active</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. alert</td>
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<td>3. carefree</td>
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<td>4. cheerful</td>
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<tr>
<td>5. considerate</td>
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<td>37. unselfish</td>
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Appendix D

Index of Adjustment and Values (Modification)

HUDSON HIGH SCHOOL
Hudson, Ohio

INDEX OF ADJUSTMENT AND VALUES
Robert E. Bills
Test 6

There is a need for each of us to know more about ourselves, but we seldom have an opportunity to look at ourselves as we are or as we would like to be. Following are a number of terms that, to a certain degree, describe people.

Do not make any marks on the test booklet. Find the section of the answer sheet marked Test 6 on the left side of the answer sheet. You will make all marks for Test 6 in this section. Do not make any marks until you have read the directions.

DIRECTIONS:

Part 1 (Questions 1 - 37)

Take terms 1 - 37 given on the next page separately and apply them to yourself by completing the following sentence:

I am a (an) _________________________person.

Turn the page and look at the list of terms. Notice the sample word, "Satisfied", at the top of the list. If you would substitute this term in the above sentence it would read "I am a Satisfied person".

You will then decide how much of the time this statement is like you and indicate your choice by darkening the correct number on the accompanying answer sheet. Do not mark the answer sheet for the word, "Satisfied".

Mark the answer sheet:

"1" If, most of the time, I am like this.
"2" If, about \( \frac{1}{2} \) of the time, I am like this.
"3" If, hardly ever, I am like this.

For example, for the word "Satisfied", if you had darkened Space "1" on the answer sheet, it would mean "Most of the time, I am a Satisfied person."
Remember: Make broad dark marks that completely fill the bracket around the number. Do not mark beyond the lines. Completely erase any marks you wish to delete. Use only a number 2 pencil. Mark only ONE answer for each question. CAUTION - Notice that the question numbers go across the answer sheet rather than down.

Begin with the word "Active". When you have answered questions 1 - 37 turn the page and read the directions for Part II.

Mark the answer sheet:
"1" If, most of the time, I am like this.
"2" If, about ½ of the time, I am like this.
"3" If, hardly ever, I am like this.

SAMPLE WORD: SATISFIED

1. Active 14. Helpful 27. Sharing
7. Courteous 20. Loyal 33. Thrifty

Part II (Questions 38 - 74)

You will now answer questions 38 - 74. Use one of the statements given below to tell how you feel about yourself on terms 38 - 74.
Mark the answer sheet:
"1" If, I like being as I am in this respect.
"2" If, I neither like nor dislike being as I am in this respect.
"3" If, I dislike being as I am in this respect.

Indicate your choice for the words below in the same manner as you did for words 1 - 37. For example, for the word "Satisfied" if you darkened space "1" on the answer sheet, it would mean "I like being as "Satisfied" as I am."

Now complete questions 38 - 74 using the words below. Begin with the word "Active". When you have completed question 38 - 74 turn the page and read the directions for Part III.

**SAMPLE WORD: SATISFIED**

38. Active 51. Helpful 64. Sharing
39. Alert 52. Honest 65. Sincere
40. Carefree 53. Humorous 66. Studious
41. Cheerful 54. Intelligent 67. Sociable
42. Considerate 55. Interesting 68. Tactful
43. Cooperative 56. Kind 69. Thoughtful
44. Courteous 57. Loyal 70. Thrifty
45. Dependable 58. Neat 71. Trustworthy
46. Democratic 59. Obedient 72. Truthful
47. Faithful 60. Patient 73. Understanding
48. Friendly 61. Playful 74. Unselfish
49. Generous 62. Polite
50. Happy 63. Quiet

Part III (Questions 75 - 111)

Using the same term, "Satisfied", complete the following sentence.

I would like to be a (an)____________________person.
Then decide how much of the time you would like this to be an example of you and rate yourself on the following scale:

Mark the answer sheet:
"1" If, most of the time, I would like this to be me.
"2" If, about \( \frac{1}{2} \) the time, I would like this to be me.
"3" If, hardly ever, I would like this to be me.

For example, for the word "Satisfied", if you had darkened space "1" on the answer sheet it would mean, "Most of the time, I would like to be this kind of person."

Now complete questions 75 - 111 using the words below. Begin with the word "Active".

<table>
<thead>
<tr>
<th>Question</th>
<th>Word 1</th>
<th>Word 2</th>
<th>Word 3</th>
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<tr>
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<td>Active</td>
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<td>Helpful</td>
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<td>Alert</td>
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<td>Generous</td>
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<td>101.</td>
<td>Sharing</td>
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<td>102.</td>
<td>Sincere</td>
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<td>103.</td>
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<td>104.</td>
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<td>111.</td>
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<td>NAME</td>
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**JIM SCALE**

**STUDENT QUESTIONNAIRE**

(Form F)

Jack R. Frymier  
College of Education  
The Ohio State University  
Columbus, Ohio
DIRECTIONS

We are trying to find out how students think and feel about a number of important topics. In order to do this, we would like to ask you to answer some questions. This is not an intelligence test nor an information test. There are no “right” or “wrong” answers. The best and only correct answer is YOUR PERSONAL OPINION. Whatever your answer is, there will be many who agree and many who disagree. What we really want to know is HOW YOU FEEL about each statement.

Read each statement very carefully, and then indicate your agreement or disagreement by marking it, according to the following scale, in the appropriate space beside each statement.

+1 slight support, agreement         —1 slight opposition, disagreement
+2 strong support, agreement        —2 strong opposition, disagreement

You may have as much time as you need, so read each statement very carefully and answer it the best way you can.
1. Late afternoon is the best time of day.
2. Many children have often been punished without cause.
3. Students should be made to go to school until they are 18 years old.
4. Being right is more important than being kind.
5. School is more fun when teachers let students do things they want to.
6. Pupils who try should get good grades even if they make mistakes.
7. Successful people are those who make the most money.
8. The best way to spend a free evening is with a good book.
9. Most young people do not want to go to school.
10. Some new ideas are interesting, but most of them are not.
11. Practical people are usually highly respected.
12. Knowing the answer is more important than knowing where to get the answer.
13. Many young people feel grouchy.
14. The best people refuse to depend on other persons.
15. Some teachers make school more interesting than others.
16. A person's feelings on a topic are not as important as the facts.
17. There are more important things in the world than making money.
18. It does not really help much to study about people from other lands.
19. Life is mostly sorrow with just a little joy.
20. Some students have to study more than others.
21. Many youngsters often want to run away from home.
22. Being a good speaker is just as important as being a good speller.
23. Some teachers seem to enjoy making students suffer.
24. Our whole trouble is that we won't let God help us.
25. Most people worry more before they take a test than during the test.
26. No one seems to understand young people.
27. Learning to cooperate is more important than learning to compete.
28. Most people would like school better if teachers did not give grades.
29. The world we live in is a pretty lonesome place.
30. Social progress can only be achieved by returning to our glorious past.
31. It is very foolish to advocate government support of education.
32. Most people's hardest battles are with themselves.
33. There is nothing new under the sun.
34. Helping other people is the key to happiness.
35. Life seems to be one big struggle after another.
36. Most people just don't give a “darn” for others.
37. The best way to achieve security is for the government to guarantee jobs.
38. Some people do not appreciate the value of an education.
39. Most young people feel uncomfortable around someone of the opposite sex.
40. Many new ideas are not worth the paper they are printed on.
|  +1  |
|  +2  |
|  +3  |
|  +4  | slight support, agreement
|  -1  |
|  -2  | slight opposition, disagreement

|  +2  |
|  +3  |
|  +4  | strong support, agreement
|  -2  | strong opposition, disagreement

41. Many teachers are not considerate of students' feelings.
42. Teachers are generally underpaid.
43. Being unhealthy is worse than being unhappy.
44. It is better to forget than to forgive.
45. Pupils who copy during an examination should fail the test.
46. Young people should be free to follow their own desires.
47. Listening to a good speaker is the best way to learn.
48. The present is all too often full of unhappiness.
49. Most people just don't know what is good for them.
50. Understanding yourself helps one understand others.
51. People who dream a lot at night are apt to be crazy.
52. Familiarity breeds contempt, so one should never be too friendly.
53. There is a real limit to man's intelligence.
54. People who are insulted generally deserve to be.
55. Experience may be a good teacher, but schools are better.
56. Wasting time is even worse than wasting money.
57. People who are quick thinkers usually jump to conclusions.
58. Most people do not have good ideas until they grow up.
59. When people are unhappy they should talk to someone about it.
60. Looking good is just as important as being good.
61. The best part of education is that which people teach themselves.
62. Famous people usually have a lot of money.
63. Most people cannot learn from the experience of others.
64. The dreamer is a danger to society.
65. Most teachers like to drive students if they have the chance.
66. God helps those who help themselves.
67. One can never desire too much of a good thing.
68. Being a liar is better than being a gossip.
69. Asking questions usually gets you into trouble.
70. Not many people in the world are really kind.
71. The biggest part of being successful is determination.
72. Teachers know more and do less than most other people.
73. Hope is really no better than worry.
74. School is not all that it's cracked up to be.
75. Everything that people do is either right or wrong.
76. Quick thinking is always better than being polite.
77. The gentle person often treats himself severely.
78. Everybody ought to do something worthwhile everyday.
79. We are never really as happy as we think we are.
80. All those who fail have worked in vain.

STOP! CLOSE YOUR TEST BOOKLET
Appendix F

JIM Scale (Modification)

HUDSON HIGH SCHOOL
Hudson, Ohio

JIM SCALE STUDENT QUESTIONNAIRE
Jack R. Frymier
Test 7

Directions: We are trying to find out how students think and feel about a number of important topics. In order to do this, we would like to ask you to answer some questions. This is not an intelligence test nor an information test. There are no "right"-or "wrong" answers. The best and only correct answer is YOUR PERSONAL OPINION. Whatever your answer is, there will be many who agree and many who disagree. What we really want to know is HOW YOU FEEL about each statement.

Do not mark on the test booklet. Find the area labeled Test 7 on the left side of the answer sheet. You will make all marks for this test in the area marked Test 7 on the answer sheet.

Read each statement very carefully, and then indicate your agreement or disagreement by marking it, according to the following scale, in the appropriate space on the answer sheet.

1 - slight support, agreement
2 - strong support, agreement
3 - slight opposition, disagreement
4 - strong opposition, disagreement

You may have as much time as you need, so read each statement very carefully and answer it the best way you can.

Remember: Make broad dark marks that completely fill the bracket around the number. Do not mark beyond the lines. Completely erase any marks you wish to delete. Use only a number 2 pencil. Mark only ONE answer for each question.

CAUTION - Notice that the question numbers go across the answer sheet rather than down.
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43. Being unhealthy is worse than being unhappy.
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76. Quick thinking is always better than being polite.
77. The gentle person often treats himself severely.
78. Everybody ought to do something worthwhile everyday.
79. We are never really as happy as we think we are.
80. All those who fail have worked in vain.
Appendix G

Occupational Aspiration Scale (Original)

Copyright 1957
By Archie O. Haller

YOUR NAME ____________________________

OCCUPATIONAL ASPIRATION SCALE

THIS SET OF QUESTIONS CONCERNS YOUR INTEREST IN DIFFERENT KINDS OF JOBS. THERE ARE EIGHT QUESTIONS. EACH ONE ASKS YOU TO CHOOSE ONE JOB OUT OF TEN PRESENTED.

BE SURE YOUR NAME IS ON THE TOP OF THIS PAGE.

REACH EACH QUESTION CAREFULLY. THEY ARE ALL DIFFERENT.

ANSWER EACH ONE THE BEST YOU CAN. DON'T OMIT ANY.

Question 1. Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN GET when your SCHOOLING IS OVER?

1.1____Lawyer
1.2____Welfare worker for a city government
1.3____United States representative in Congress
1.4____Corporal in the Army
1.5____United States Supreme Court Justice
1.6____Night watchman
1.7____Sociologist
1.8____Policeman
1.9____County agricultural agent
1.10____Filling station attendant
Question 2. Of the jobs listed in this question, which ONE would you choose if you were FREE TO CHOOSE ANY of them you wished when your SCHOOLING IS OVER?

2.1 ___Member of the board of directors of a large corporation
2.2 ___Undertaker
2.3 ___Banker
2.4 ___Machine operator in a factory
2.5 ___Physician (doctor)
2.6 ___Clothes presser in a laundry
2.7 ___Accountant for a large business
2.8 ___Railroad conductor
2.9 ___Railroad engineer
2.10 ___Singer in a night club

Question 3. Of the jobs listed in this question which is the BEST ONE you are REALLY SURE YOU CAN GET when your SCHOOLING IS OVER?

3.1 ___Nuclear physicist
3.2 ___Reporter for a daily newspaper
3.3 ___County judge
3.4 ___Farber
3.5 ___State governor
3.6 ___Soda fountain clerk
3.7 ___Biologist
3.8 ___Mail carrier
3.9 ___Official of an international labor union
3.10 ___Farm hand
Question 4. Of the jobs listed in this question, which ONE would you choose if you were FREE TO CHOOSE ANY of them you wished when your SCHOOLING IS OVER?

4.1___Psychologist
4.2___Manager of a small store in a city
4.3___Head of a department in state government
4.4___Clerk in a store
4.5___Cabinet member in the federal government
4.6___Janitor
4.7___Musician in a symphony orchestra
4.8___Carpenter
4.9___Radio announcer
4.10___Coal miner

Question 5. Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN HAVE by the time you are 30 YEARS OLD?

5.1___Civil engineer
5.2___Bookkeeper
5.3___Minister or Priest
5.4___Streetcar motorman or city bus driver
5.5___Diplomat in the United States Foreign Service
5.6___Share cropper (one who owns no livestock or farm machinery, and does not manage the farm)
5.7___Author of novels
5.8___Plumber
5.9___Newspaper columnist
5.10___Taxi driver
Question 6. Of the jobs listed in this question, which ONE would you choose to have when you are 30 YEARS OLD, if you were FREE TO HAVE ANY of them you wished?

6.1___Airline pilot
6.2___Insurance agent
6.3___Architect
6.4___Milk route man
6.5___Mayor of a large city
6.6___Garbage collector
6.7___Captain in the army
6.8___Garage mechanic
6.9___Owner-operator of a printing shop
6.10___Railroad section hand

Question 7. Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN HAVE by the time you are 30 YEARS OLD?

7.1___Artist who paints pictures that are exhibited in galleries
7.2___Traveling salesman for a wholesale concern
7.3___Chemist
7.4___Truck driver
7.5___College professor
7.6___Street sweeper
7.7___Building contractor
7.8___Local official of a labor union
7.9___Electrician
7.10___Restaurant waiter
Question 8. Of the jobs listed in this question, which ONE would you choose to have when you are 30 YEARS OLD, if you were FREE TO HAVE ANY of them you wished?

8.1 Owner of a factory that employs about 100 people
8.2 Playground director
8.3 Dentist
8.4 Lumberjack
8.5 Scientist
8.6 Shoeshiner
8.7 Public school teacher
8.8 Owner-operator of a lunch stand
8.9 Trained machinist
8.10 Dock worker
Appendix H

Occupational Aspiration Scale (Modification)

HUDSON HIGH SCHOOL
Hudson, Ohio

Directions: This set of questions concerns your interest in different kinds of jobs. There are eight questions. Each one asks you to choose one job out of the ten presented. Read each question carefully. They are all different. Answer each one the best you can. Do not omit any.

Do not mark on the test booklet. Find the area labeled Test 1 on the left side of the separate answer sheet. You will make all marks for this test in the area marked Test 1 on the answer sheet. You are to darken the number of the answer that you choose. Make broad dark marks that completely fill the brackets around the number. Do not mark beyond the lines. Completely erase any marks you wish to delete. Use only a number 2 pencil. Mark only ONE answer for each question.

CAUTION: Notice that the question numbers go across rather than down the answer sheet.

1. Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN GET when your SCHOOLING IS OVER?

0. Lawyer
1. Welfare worker for a city government
2. United States representative in Congress
3. Corporal in the army
4. United States Supreme Court Justice
5. Night watchman
6. Sociologist
7. Policeman
8. County agricultural agent
9. Filling station attendant
2. Of the jobs listed in this question, which ONE would you choose if you were FREE TO CHOOSE ANY of them you wished when your SCHOOLING IS OVER?

0. Member of the board of directors of a large corporation
1. Undertaker
2. Banker
3. Machine operator in a factory
4. Physician (doctor)
5. Clothes presser in a laundry
6. Accountant for a large business
7. Railroad conductor
8. Railroad engineer
9. Singer in a night club

3. Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN GET when your SCHOOLING IS OVER?

0. Nuclear physicist
1. Reporter for a daily newspaper
2. County judge
3. Barber
4. State governor
5. Soda fountain clerk
6. Biologist
7. Library worker
8. Official of an international labor union
9. Farm hand

4. Of the jobs listed in this question, which ONE would you choose if you were FREE TO CHOOSE ANY of them you wished when your SCHOOLING IS OVER?

0. Psychologist
1. Manager of a small store in a city
2. Head of a department in state government
3. Clerk in a store
4. Cabinet member in the federal government
5. Janitor
6. Musician in a symphony orchestra
7. Carpenter
8. Radio announcer
9. Coal miner
5. Of the jobs listed in this question, which one is the **BEST ONE** you are REALLY SURE YOU CAN HAVE by the time you are **30 YEARS OLD**?

0. Civil engineer
1. Bookkeeper
2. Minister or priest
3. Streetcar motorman or city bus driver
4. Diplomat in the United States Foreign Service
5. Share cropper (one who owns no livestock or farm machinery, and does not manage the farm)
6. Author of novels
7. Plumber
8. Newspaper columnist
9. Taxi driver

6. Of the jobs listed in this question, which ONE would you choose to have when you are **30 YEARS OLD**, if you were FREE TO HAVE ANY of them you wished?

0. Airline pilot
1. Insurance agent
2. Architect
3. Milk route man
4. Mayor of a large city
5. Garbage collector
6. Captain in the army
7. Automobile mechanic
8. Owner-operator of a printing shop
9. Railroad section hand

7. Of the jobs listed in this question, which one is the **BEST ONE** you are REALLY SURE YOU CAN HAVE by the time you are **30 YEARS OLD**?

0. Artist who paints pictures that are exhibited in galleries
1. Traveling salesman for a wholesale concern
2. Chemist
3. Truck driver
4. College professor
5. Street sweeper
6. Building contractor
7. Local official of a labor union
8. Electrician
9. Restaurant waiter
8. Of the jobs listed in this question, which ONE would you choose
to have when you are 30 YEARS OLD, if you were FREE TO HAVE ANY
of them you wished?

0. Owner of a factory that employs about 100 people
1. Playground director
2. Dentist
3. Lumberjack
4. Scientist
5. Shoeshiner
6. Public school teacher
7. Owner-operator of a lunch stand
8. Trained machinist
9. Dock worker

This questionnaire was adapted from: Haller, Archie O. *Occupational
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