SELF-CONCEPT, PERSONALITY ADJUSTMENT, AND MEASURABLE INTELLIGENCE OF DELINQUENT BOYS

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CHAPTER I

INTRODUCTION

The major schools of psychological thought abound in theoretical speculation concerning self-concept. In fact, few concepts have occupied a more prominent place in personality theory, through the years, than has self-concept.

Psychoanalytic theory assigns the task of self-preservation to the ego. Shoben says that self-preservation is accomplished by the ego "... gaining control over the demands of the id, by determining whether and when instinctual wishes are to be gratified." (6, p. 31). The ego's thus becomes the dynamic reality within the personality. Psychoanalytic theory has hypothesized a relationship between self-concept and behavior maladjustment. Behavior maladjustment is related to the individual's faulty concept of self, with the degree of maladjustment being in proportion to the negative attitude one has toward himself. Horney's writings reveal the importance of self-concept. To her, man's need to value himself and to be valued by others is one of the most essential parts of man's nature. Munroe reflects the thinking of Horney as follows:

Self-esteem is another concept that bulks large in Horney's operative dynamics. . . the need to value oneself and to be valued seems to Horney one of the obvious "givens" of human nature. Overevaluation or
underevaluation—of self is the consequence of special threat in this area, always to be analyzed in terms of basic anxiety and need of security. But even hostility is thought of as dangerous in most instances not so much because the person fears annihilation even at the primitive, unconscious level as because recognition of hostility is a threat to his self-concept (5, p. 346).

Strang voices the theoretical view of the psychoanalytical school of thought concerning the origin of self-concept.

The very origin of the self-concept is dynamic. It arises out of the complex of the person's interpersonal relations and... It is molded by approval and disapproval, praise and blame, reward and punishment, the giving and withholding of love, especially by the persons most significant in the individual's life (8, p. 75).

While the self-concept plays a definite role in psychoanalytical theory, it demands far more significance in the phenomenological theory. Phenomenological theorists, unlike the psychoanalytical theorists, have constructed two concepts, they separate the ego from the self. Symonds (9, p. 361) states: "... the two terms ego and self will be used because it is believed that there are two concepts with regard to the self which need to be kept distinct and would therefore seem to require two different terms."

The ego is the actor and the observer, while the self is the observed. The ego interacts with the outside world to satisfy the inner needs, the self, on the other hand, reacts to and is enhanced or damaged by the actions of the ego.

... to define ego... it is an active process for developing and executing a plan of action for attaining satisfaction in response to inner drives. The self, on the other hand, refers to the ego as it is observed and
reacted to by the individual (9, pp. 361-362).

Hall and Lindzy also ascribe a two-dimensional aspect to the self.

The term self as used in modern psychology has come to have two distinct meanings. On the one hand it is defined as the person's attitudes and feelings about himself, and on the other hand it is regarded as a group of psychological processes which govern behavior and adjustment. The first meaning may be called the self-as-object definition since it denotes the person's attitudes, feelings, perceptions, and evaluations of himself as an object. In this sense, the self is what a person thinks of himself. The second meaning may be called the self-as-process definition. The self is a doer, in the sense that it consists of an active group of processes such as thinking, remembering, and perceiving (3, p. 468).

The prominence of self-concept and self-theory in total personality structure would lead one to expect to find numerous empirical studies in the literature pertaining to causal factors in self-concept development. Such, however, is not the case. Coopersmith, in his study of causal factors relating to self-concept, states, "It is therefore disconcerting that so little is known about the conditions and experiences that enhance or lessen self-esteem." (2, p. 1). In spite of the derth of empirical studies relating to the developmental factors in self-concept, as one searches the literature he becomes convinced that basic to all views of self, self-concept and self theory is the fact that the individual's concept of self has a strong relationship to his behavior pattern. Ludwig and Maehr (4, p. 455) state, "... most, if not all theories suggest that an individual's
concept of self is directly related to certain behavioral consequences."

Change in self-concept seems to have a strong relationship to change in behavior. When self-concept experiences a positive change, behavior on the part of the individual will also experience a positive change. Stock (7, p. 178) found that as the feelings about self change, feelings about others and behavior toward others change in the same direction.

Training in the State Training School at Gatesville

The philosophy of training in the State Training School for Boys at Gatesville, Texas has changed drastically in the past twelve years. In 1957, when the Texas Youth Council was created and charged with the responsibility of the Training School, all boys were in "... a single old overcrowded institution housing boys of all ages and all degrees of experience and sophistication in delinquency." (10, p. 6). Today there are seven (open type) units, each designed for boys of a particular type and age. (11, p. 6).

The autocratic type discipline with corporal punishment has been replaced by a permissive type discipline with a ban on corporal punishment. Formal discipline measures of a nonpunative nature are used when indicated. These measures are administered by a Discipline Committee composed of the Assistant Superintendent in charge of the school, the Principal of the Academic School, the Caseworker Supervisor, the
the Chaplain, and the Houseparent Supervisor.

When a boy is assigned to the State Training School at Gatesville, Texas he is admitted at the Reception Center. He remains at the Reception Center for approximately two weeks for complete immunizations, physical and psychological examinations, educational and social evaluations, and a general orientation to the Training School procedures. A plan of treatment is determined for each boy according to his individual needs. Each boy is interviewed by a staff Clinical Psychologist, who makes an assessment of the needs of the boy. The boy is then assigned to the Academic School which will best meet his needs. He is then assigned to a caseworker who assumes responsibility for his psychological well being and his morale.

The treatment of the boy begins just as soon as he arrives at the Reception Center. The treatment and rehabilitation are designed to reduce the tension and anxiety of the boy. The policy of the Texas Youth Council is to coordinate all its efforts so as to give the boy a feeling of awareness and worth at all times. A statement by James A. Turman, Executive Director of the Texas Youth Council, emphasizes this policy.

The institutional treatment and rehabilitation process for all boys committed to the Texas Youth Council by the courts of the state must begin the moment they are delivered to the Reception Center. It cannot be delayed for several hours, several days or several weeks with the assumption that "treatment" can be picked up at
some later date during their stay at the institution (12, p. 2).

No part of the orientation program is left to chance. No part of the orientation program is assigned to subordinate employees or to students. The Policy Directive (12) clearly indicates that the boy is to be made to feel worthwhile by his treatment at the Reception Center and the manner of his introduction to his permanent Academic School assignment.

The training program of the Training School has evolved from a minimum amount of training in connection with custodial processes to a fully accredited school system with six elementary schools and a high school. The school system is supplemented by a vocational training program embracing a range of training from agriculture to computer programming.

James A. Turman, Executive Director of the Texas Youth Council, reported,

The Council is especially pleased to report that its programs of education and rehabilitation for delinquent youngsters have continued to return dividends in which the people of Texas can take justifiable pride. In addition to providing fully accredited academic and vocational education for all delinquent youngsters committed to its care and custody, the Council conducted formal high school commencement exercises for those who were able to complete the necessary requirements for high school graduation while in the Training Schools (11, p. 2).

One unique feature of the scholastic training program is the manner in which boys are placed in the school grade. Each boy is given a school placement test as part of his orientation and testing process. The boy is placed in the
grade indicated by the score on the school placement test, regardless of his age.

Another unique feature of the scholastic training program is work done with boys who are affected by developmental dyslexia. These boys are placed in a one-to-one learning situation with specially trained teachers using methods of training developed by authorities in the field of speech disorders.

Parallel with the development of the training program in the Training School there has been a decided decrease in the number of boys who have been returned to the Training School for breaking parole. In 1962 forty-two percent of the juveniles had been committed more than one time, while in 1968 only twenty-seven percent had been committed more than one time (13).

The program of training and rehabilitation in the Training School is designed to equip the boy to make a successful readjustment to community life when he is released from the Training School. The reports from year to year give evidence that the purpose of the Training School is being fulfilled.

The Council is pleased to point out that the majority of youngsters released on parole under the supervision of TYC Parole Officers during the period covered by this report returned to regular attendance in the public schools and a substantial percentage of the others were placed in gainful full-time employment utilizing skills learned while in the Training Schools. These accomplishments are especially significant when
compared with the virtually 100% drop-out, unemployment and delinquency records of these youngsters prior to commitment to the Texas Youth Council (12, p. 14).

The efficiency and effectiveness of the training program of the State Training School for Boys at Gatesville is attested to by the high rating assigned to the Training School by Austin MacCormick, Executive Director of The Osborne Association, Inc., which is the recognized authority on both adult and juvenile correctional institutions:

Now, more than 10 years having elapsed since the establishment of the Texas Youth Council in 1957, and my four studies having covered the years of its most significant progress, I am ready to risk a rating which I believe the Council and its institutions and services fully deserve: Second only, in the country, to the California Youth Authority, which was established in 1941 and thus had a head start of 16 years on the Texas Youth Council. It is generally recognized as the outstanding state agency for juveniles and youths up to age 21, and it is no disgrace to be rated just below it, with a good chance of overtaking it eventually (12, p. 6).

A survey of literature and the results of a preliminary study (Appendix A) lead to the assumption that there is a significant relationship between the self-concept and personality adjustment and between self-concept and measurable intelligence of boys assigned to the Texas Youth Council's State Training School for Boys at Gatesville, Texas. It is also assumed that a gain in self-concept on the part of the boys in the training school is a significant factor in successful readjustment to "normal" life when they are released from the training school. It might also be assumed that the
degree of adjustment made by the boys will be positively related to the amount of change achieved in self-concept and other personality factors as a result of training received.

Statement of the Problem

The primary purpose of this study was to investigate the change in self-concept, personality adjustment, and measurable intelligence of delinquent boys after a period of training received in the State Training School for Boys operated by the Texas Youth Council at Gatesville, Texas. Inherent in the study was an attempt to isolate factors which can be assumed to identify those individuals who might be more likely to profit from the training received.

A secondary purpose of the study was to investigate a probable causal relationship between training received and the change made in self-concept, personality adjustment, and measurable intelligence. Differences between the change in self-concept, personality adjustment, and measurable intelligence of boys who were assigned to the training school for major offense and boys assigned for minor offense were also investigated, as well as the differences between changes in the same variables for boys thirteen and fourteen years of age and boys fifteen and sixteen years of age.

Hypotheses

The following hypotheses grew out of the stated purposes of this study and are based on assumptions growing out of the
preliminary study reported in Appendix A of this study and out of related literature surveyed and reported in Chapter II of this study entitled "Theoretical Background and Related Literature."

1. There will be a significant gain in self-concept for boys who participate in the regular training program of the State Training School for Boys at Gatesville, Texas.
   a. Gain in self-concept will be significantly greater for minor offenders than for major offenders.
   b. Gain in self-concept will be significantly greater for boys thirteen and fourteen years of age, than for boys fifteen and sixteen years of age.

2. There will be significant gain in personality adjustment for boys who participate in the regular training program of the State Training School for Boys at Gatesville, Texas.
   a. Gain in personality adjustment will be significantly greater for minor offenders than for major offenders.
   b. Gain in personality adjustment will be significantly greater for boys thirteen and fourteen years of age than for boys fifteen and sixteen years of age.
3. There will be a significant gain in measurable intelligence for boys who participate in the regular training program of the State Training School for Boys at Gatesville, Texas.
   a. Gain in measurable intelligence will be significantly greater for minor offenders than for major offenders.
   b. Gain in measurable intelligence will be significantly greater for boys thirteen and fourteen years of age than for boys fifteen and sixteen years of age.

4. There will be a significant positive relationship between self-concept and measurable intelligence for boys tested.

5. There will be a significant negative relationship between self-concept and personality adjustment scores for boys tested.

6. There will be a significant negative relationship between measurable intelligence and personality adjustment scores for boys tested.

The .05 level of significance will be used to determine the acceptability of each hypothesis and each sub-hypothesis.

Definition of Terms

1. **Self-concept**—"... the evaluation which the individual makes and customarily maintains with regard to
to himself. . ." (2, p. 4). Self-concept was operationally defined, for the purpose of this study, as the score achieved on Coopersmith's Self-Esteem Inventory, hereafter referred to as SEI (2, p. 265).

2. Personality adjustment— the degree to which the individual has integrated his behavior traits to cope with the environment in which he lives. Personality adjustment was operationally defined, for the purpose of this study, as the score obtained on the Children's form of the Manifest Anxiety Scale (1, p. 318-319).

3. Measurable intelligence— a culturally derived faculty for successfully relating to one's environment. Measurable intelligence was operationally defined, for the purpose of this study, as the score achieved on the Wechsler Intelligence Scales. For boys sixteen years of age the WAIS was used. For boys under sixteen years of age the WISC was used.

4. Major offence— the severity of the offense committed by the boy resulting in his assignment to the training school. Major offense was operationally defined, for the purpose of this study, as an offense judged to be severe or moderately severe by a team of raters composed of practicing clinical psychologists and other staff members employed at the training school.

5. Minor offense— operationally defined, for the purpose of this study, as an offense judged to be minor by
a team of raters composed of practicing clinical psychologists and other staff members employed at the training school.
CHAPTER BIBLIOGRAPHY


Newspapers

CHAPTER II

THEORETICAL BACKGROUND AND RELATED LITERATURE

As has been previously stated, the literature abounds in theoretical speculation concerning self-concept. Theoretical positions relating to the origin, nature, continued development, and relationship to other factors are abundant. However, there are few empirical studies dealing with these variables. Coopersmith (12, p. 19) stated: "In light of the potential significance of self-esteem and the wider belief that it is a theoretically central variable, it is surprising to note that the topic has been barely investigated."

This chapter will include a discussion of the theoretical background and related literature as they pertain to self-concept and its relationship to personality adjustment and measurable intelligence. The relationship between self-concept and delinquent behavior will also be discussed as well as the changeability of self-concept.

Self-Concept

Rogers, who defines self-concept as "... an organized configuration of perceptions of the self which are admissible to awareness" (30, p. 136), makes the self the very center of his theory. His nineteen propositions are built around the significance of self and the individual's concept of
self. Proposition I (30, p. 483) makes the individual the center of the universe. Proposition IV (30, p. 487) makes the driving purpose of the organism the maintenance and enhancement of self. Proposition XII (30, p. 507) claims the self-concept to be responsible for the behavior of the individual. Proposition XIII (30, p. 509) states that the individual will deny behavior which is inconsistent with self-concept.

Allport makes self and the concept of self the unifying factor in personality. When there is a positive regard for self the individual's emotions are reflected in a well organized pattern of behavior.

The self becomes the center of an orderly psychological universe. Whether the self is regarded as the innermost nucleus of all conscious ego-systems (Koffka) or as the interplay of all conscious states (James), does not greatly matter. In either case the self is the subjective moderator of whatever unity the personality may have (1, p. 345.)

Allport also points out that unity of behavior is accomplished or maintained through the development of a strong positive self-concept.

Perhaps the most significant property of the self is the peculiar inward quality of emotional life, represented variously as the principle of egoism, self-esteem, the sentiment of self-regard or as the "upward tendency of the ego." Whenever the developed ego is the object of regard, as it very often is, unity is enhanced, for at such moments all activities have a clear common point of view (1, p. 345).

Combs and Snygg placed the self and the individual's concept of self in a place of preeminence as a determiner of behavior. One of their basic assumptions is that perception
of the phenomenal field determines the behavior of the individual and that the perception the individual has of self determines his perception of the phenomenal field.

The concepts of self by the individual determine the perceptions he will have of any particular event. Out of all perceptions possible at any given moment only those which are appropriate and consistent with the phenomenal self are available to him. This selective process determines the roles people play in life situations (10, p. 156).

Self-concept and Measurable Intelligence

There have been fewer theoretical speculations and less empirical experimentation pertaining to the relationship between self-concept and measurable intelligence than of the relationship between self-concept and any other variable. There have been, however, a number of studies relating achievement to self-concept.

Coombs and Davies found that students with high scholastic records have high self-concepts. . . . statistically significant results were found at the .01 level in seven out of eight tests which related the two measures of self-conception to college achievement. That is to say, regardless of whether A.C.E. scores were high or low, students tended to do better when they had lofty self-concepts and when they expected to obtain super grades (11, p. 468).

Fink (14) hypothesized that high academic achievement is related to adequate self-concept and that inadequate self-concept is related to underachievement. He accepted his hypothesis at the .01 level of significance. Irving compared sentence completion responses and semester grades
for 171 first year college students and found a high positive correlation between self-concept and academic achievement. Irving (19, p. 270) concluded, "The most notable finding was a positive correlation (r = .48) between self-concept and academic achievement."

Lamy (20, p. 251) concluded that a child's self-concept is not only related to but may be a causal factor in his subsequent reading ability.

Quimby (27) explained the relationship between self-concept and achievement on the basis of motivation. She assumed that the student with an adequate self-concept feels that he can succeed and will therefore put forth the necessary effort to achieve, but that the student with the inadequate self-concept feels that he cannot succeed and will therefore not put forth the necessary effort to achieve.

Wattenberg and Clifford attempted to establish the chronological order of the development of a poor self-concept and reading disability. The self-concept scores for children in kindergarten proved to be predictive of progress in reading two and one half years later. Self-concept scores were positively related to measures of mental ability but this relationship was not statistically significant.

Although the levels of significance were far from overwhelming, the consistency in results were striking. In general, the measures of self-concept and of ego strength taken at the kindergarten were predictive of reading achievement two and one half years later. The association between these measures and intelligence
test scores was so low that one can say with some assurance that measures of self-concept as to competence and personal worth if taken early in kindergarten would add significantly to predictive efficiency now attainable through tests of mental ability (37, p. 466).

Guilford (17, p. 411) makes the assumption that the higher the intelligence of the child, the greater his proneness toward feelings of inferiority. If this assumption is true there should be a negative relationship between measurable intelligence and self-concept. The literature, in general, does not support this assumption, however.

There have been some studies which seem to establish a relationship between self-concept and measurable intelligence. White (38, p. 167) agrees with Terman that children with superior intelligence are better adjusted and have stronger self-concepts than children with average and low intelligence. Silver (35) found a positive correlation between intelligence and self-concept level. He also found a degree of agreement between intelligence and parental acceptance and peer acceptance, two of the main factors in determining self-concept.

Gibby and Gabler, in comparing the self-concept and measurable intelligence of Negro and white pupils found that Negro and white children differ significantly in self-concept as measured by self-ratings on intelligence with the greatest discrepancies between actual I.Q. scores and self-ratings being achieved by Negro children, they stated:
One clear conclusion, however, is that for both Negro and white children, self-concept, as measured by reality-discrepency scores on self-ratings on intelligence, is influenced by both the sex of the child and by the intelligence level (16, p. 145).

Ringness (20, p. 460) found that the self-image varies with intelligence and sex and also that self-ratings of mentally retarded children are less reliable than average or bright children. Piers and Harris (26, p. 93) also found positive but low correlations between self-concept and measurable intelligence and between self-concept and achievement for third-grade children, but a high positive relationship for sixth-grade children. For a sample of 116 children, $r = .25$ which is significant beyond the .01 level. They concluded: "In general, it would appear that the relationship between self-concept scores and I. Q. and achievement is considerably greater at the sixth-grade than at the third-grade level."

Bledsoe (6, p. 57) worked with fourth and sixth grade boys and girls and found a positive relationship between self-concept and intelligence test scores as well as a positive relationship between self-concept and academic achievement.

Benjamin studied high school students to determine the amount of change in intelligence test scores based on change in self-ratings. Prediction was made that change in the two variables would be in the same direction. Subjects were
asked to take an intelligence test after making a self-rating of how intelligent they were. After a distorted feedback on the relationship between self-rating and intelligence the subjects were asked to make another self-rating and to take another intelligence test. Results of the study confirmed the prediction.

Those Ss whose striving appeared to be accompanied by sufficient integration at the levels (ranks at which they sought to attain or to maintain their identities), so that their test performances were not likely to be interfered with by attention being given to the question of their identities, tended to obtain scores on the second test which were at least as high as those on the first test. Those who appeared to lack sufficient integration tended to make lower scores on the second test than on the first (4, p. 479).

Coopersmith (12, p. 129) found the correlation between subjective self-esteem and measurable intelligence to be as significant as the correlation between self-concept and academic achievement. In his study both measurable intelligence and academic achievement correlated with self-esteem at the .05 level of significance.

Although the evidence in the literature is not overwhelmingly in favor of a relationship between measurable intelligence and self-concept, there seems to be enough evidence in this direction to make the investigation of a probably relationship between these two variables profitable. It is not, however, assumed here that a causal relationship exists between self-concept and measurable intelligence, for as Coopersmith (12, p. 129) says, "To assume that self-
instead of intellectual achievements, productivity, achievement, and creativity, there have been a number of studies pertaining to the relationship between self-concept and personality.

In his discussion of the historical evolution of man's self-concept, Sharpen (34) postulated a difference between the active and empirical self. He used the concept of "whole man" to represent the process of self-integration in man. When man is self-integrated the inner and outer are united and man has a positive self-concept. The alternative to self-integration is a negative self-concept which brings disintegration varying in severity from neurosis to insanity and self-destruction.

One of the most common manifestations of negative personality adjustment is depression. In depressive patterns of behavior self-concept has a direct bearing upon the behavior of the depressed individual. Fennichel stated, "In the phenomenology of depression a greater or lesser loss of self-esteem is in the foreground." (13, p. 13).

Bills worked with fifty-six subjects, twenty-eight with
high self-ideal discrepancy and twenty-eight with low self-ideal discrepancy. He found low self-concept to be a factor in depression. The subjects with high self-ideal discrepancy scores were assumed to have low self-concepts and subjects with low self-ideal discrepancy scores were assumed to have high self-concepts. Rorschach records of the two groups were compared. Of the six factors chosen as indicators five proved to be significant in distinguishing between the two groups.

On the basis of the findings of this study it may be concluded that a group of people with a high discrepancy between concept of self and concept of ideal self differ from a group with low discrepancy scores in that high scores give more signs of depression on the Rorschach (5, p. 136).

Anxiety is another variable which is closely related to personality adjustment. Mable and Rosenfield (21) related self-concept to anxiety by asking subjects to relate discomfort generated by structurally balanced and structurally imbalanced situations. It was assumed that persons with lower self-concepts would be influenced more by the structurally imbalanced situations. The assumption proved to be well taken as subjects lower in self-concept reported significantly greater discomfort in the imbalanced situations.

May makes the assumption that as a person experiences anxiety his self-concept is weakened. As the self-concept is weakened defensive patterns of behavior develop which are interpreted in the light of personality maladjustment.
The anxiety a person feels when someone he respects passes him on the street without speaking, for example, is not as intense as the fear he experiences when the dentist siezes the drill to attack a sensitive tooth. But gnawing threat of the slight on the street may hound him all day long and torment his dreams at night, whereas the feeling of fear, though it was quantitatively greater, is gone forever as soon as he steps out of the dentist's chair. The difference is that the anxiety strikes at the center core of his self-esteem and his sense of value as a self, which is one important aspect of his experience of himself as a being. (23, p. 48).

Trent (36) related self-concept to scores on the Manifest Anxiety Scale. He worked with 63 delinquents and found a negative relationship ($r = -0.27$) between the self perception scores and the Children's form of the Manifest Anxiety Scale. Nicholas worked with 150 college students and, using guilt as a factor in personality adjustment, found a close relationship between guilt and self-concept.

...the theoretical literature suggests that guilt affects self-concept resulting in a loss of self-esteem and feeling of inferiority. The meager research available indicates that the psychological experience of guilt is best understood as a disease of the self-concept (24, p. 15).

Thorne builds his theory around the assumption that personality development and adjustment depend upon self-concept. Patterson (25, p. 67) summarizes Thorne's position by stating, "The conscious self participates in all the functions of personality and therefore becomes the organizational center of personality."

Poor personality adjustment is very often expressed in deviant or delinquent behavior in the adult as well as in
the adolescent. A number of authorities have related
delinquent behavior to an inadequate self-concept. Garrison,
for one, sees a strong relationship between self-concept
and delinquency. He stated:

In view of the fact that the direction of socialization
and a favorable self-concept have been found to have
insulation value against a propulsion toward delinquency,
stability in the direction of self-concept and social-
ization becomes very important in prediction and control
of delinquency (15, p. 412).

Rogers (29, p. 530) feels that an insecure person who
feels rejected by his society will turn outside that society
for ego strength, she stated, "An insecure child whose
parents show that they neither expect nor hope for anything
good to come of him may seek satisfaction in the close
comradship of the delinquent gang."

Hall (18) studied adjudicated and self-evaluated de-
linquents and found a positive relationship between level of
self-evaluation and identification with delinquent sub-
cultures for both groups. He also found that delinquents
with a strong degree of identification tend to have higher
levels of self-evaluation while those with lesser degrees
of identification tend to have lower levels of self-
evaluation.

Cole and Hall (8, p. 430) found two factors predominant
in delinquency. These two factors were the environment in
which the child lived and the concept he had of self. They
agree with Garrison that a healthy self-concept is one of
the main elements in immunity to delinquency.

Maslow and Mittleman (22, p. 83) found the behavior of the individual to be determined by his self-concept. They stated, "The individual tends to assume that the world evaluates him in the same manner as he evaluates himself. Thus he who feels worthless is convinced that the world considers him worthless." The individual who has a low self-concept expects the environment to react toward him as he reacts toward it. Consequently, he is expected to aggressively attacks the environment before it destroys him. This aggressive attack is reflected in a delinquent pattern of behavior.

Coleman also equated delinquent behavior with a negative self-concept and stated:

Closely related to our needs for feelings of adequacy and social approval is our need to feel—and to have others feel—that we are important and that we possess whatever traits we and they have learned to regard as valuable... We try to measure up so we can approve of ourselves and feel worth while. If we see ourselves as falling short, we tend to feel worthless, guilty, insecure (9, p. 121).

These negative feelings toward self work out in delinquent behavior which is a negative reaction toward the environment.

Reckless, Dinitz, and Murray worked with 125 nondelinquent boys from a high delinquency area in Columbus, Ohio, to determine components that enable the boys to maintain non-delinquent habits in the high delinquency area. One significant finding was the relationship between self-concept and delinquency proneness. The relationship
between these two variables was negative and high \( r = -.60 \).

It was concluded that adequate self-concept is a significant factor in non-delinquent behavior for the high delinquency area and the low delinquency area as well.

... there is a strong suspicion that a well-developed concept of self as a "good boy" is the component which keeps middle- and upper-class boys, who live in the better neighborhoods, out of delinquency. The point is that this component seems to be strong enough to "insulate" the adolescent against delinquency in the unfavorable neighborhoods (28, p. 746).

**Change in Self-concept**

One major assumption of this study was that self-concept determines the behavior of the individual. An inadequate self-concept causes the individual to act in a negative manner. It is also assumed that if there is to be a gain in behavior, self-concept must be changed. There are a limited number of studies attesting to the value of an enhanced concept of self in behavior readjustment.

Sandhu studied the changing self-concept of 33 delinquent boys in a reformatory school in Punjab, India, and found that as the self-concept changed, behavior improved and the tendency toward delinquency decreased.

A group of 33 reformatory school boys in India, whose self-image was found relatively poor, were administered a specially designed therapy to improve their self-image. The unfavorable life experiences responsible for the poor self-image were reinterpreted and re-evaluated. The lads were made conscious of their good deeds done in the past and were made aware of their present and future potentialities. The boys were tested on five tests both before and after three months
therapy. The therapy succeeded in improving the self-image of boys and also reducing their delinquency index. With improvements in self-image, their delinquency index also came down (32, p. 403).

Schofield (33) found a change in both self-concept and behavior as the result of special therapeutic procedures. He related the change in self-concept to change in scores on the MMPI clinical scales.

Ashcraft and Pitts (3) worked with behavior deviants to determine the degree of permanency in self-concept change. The experimental group changed in a positive direction on seventeen of twenty-one variables after therapy, while the control group changed in only two of the twenty-one variables. They concluded that the change made in self-concept as a result of therapy had a more consistent and permanent quality than the change made without formal therapy.
CHAPTER BIBLIOGRAPHY


32. Sandhu, Harjit S., "Group Sessions in a Reformatory School in Punjab (India)," *Corrective Psychiatry and Journal of Social Therapy*, XII (September, 1965), 393-395.


CHAPTER III

METHOD

Description of Subjects

Subjects for this study were selected from boys assigned to the State Training School for Boys at Gatesville, Texas for the first time. Predetermined criteria for subjects were (1) thirteen to sixteen years of age, (2) measurable intelligence of 85 or above, (3) reading level of the sixth grade or above.

Subjects were selected by block assignment. A starting date was selected on which the examiner began testing boys in the chronological order of their arrival at the training school. Boys thirteen to fifteen years of age were administered the Wechsler Intelligence Scale for Children (WISC). Boys sixteen years of age were administered the Wechsler Adult Intelligence Scale (WAIS). Subjects who did not obtain a score of 85 or above on the intelligence scales were eliminated from the study. Routine testing for school placement at the training school was done by a staff member. All boys with reading level ability below the sixth grade were eliminated from the study. When fifty subjects meeting the predetermined criteria were found, intelligence testing was stopped.

When the sample was completed, the subjects were
administered two additional psychometric instruments, which together with the Wechsler Intelligence Scales comprised the pre-training and post-training test battery. The characteristics of these two instruments are described below.

Description of Psychometric Instruments

Children's Manifest Anxiety Scale

The Children's form of the Manifest Anxiety Scale (CMAS) (1) was administered to the subjects in a group. The only instructions given the subjects were read from the instrument, as follows: "Read each question carefully. Put a circle around the word YES if you think it is true about you. Put a circle around the word NO if you think it is not true about you." A specimen copy of the CMAS is presented in Appendix B.

The CMAS was developed by Alfred Castenada and Boyd McCandless of the Iowa Child Welfare Research Station and David S. Palermo of Southern Illinois University (1). The CMAS is a modification of the Taylor Scale of Manifest Anxiety (5) for adults.

The CMAS is a fifty-three item inventory consisting of forty-two anxiety items and eleven falsification items which are designated, respectively, the Anxiety Scale and the Lie Scale. The items are answered either yes or no. The CMAS is designed for group administration and can be scored quantitatively to obtain a total anxiety score and a total
lie score. A total anxiety score is obtained by summing up the yes answers on the forty-two anxiety items. A total lie score is obtained by summing up the yes answers on nine of the falsification items and the no answers on the other two. An example of the anxiety items is, "I get nervous when someone watches me work." An example of the falsification items is, "I like everyone I know."

One-week retest correlation of the anxiety scale (1) showed a reliability coefficient of .90. A two-weeks retest correlation by Lipsitt (4), showed a reliability coefficient of .88. Both of these reliability coefficients were significantly different from zero at the P .01 level of confidence. Trent (5) provided evidence of internal consistency for the CMAS by the use of the split-half method of correlation. He correlated the odd item scores with the even item scores and by the use of the Spearman-Brown formula obtained a reliability coefficient of .78, which was significantly different from zero at the P .01 level.

Castaneda, McCandless and Palermo (1), as well as Lipsitt (4), found no significant relationship between the Lie Scale score and the Anxiety Scale score on the CMAS; therefore the Lie Scale score was not considered in this study.

The CMAS was selected for use as a measure of personality adjustment in this study for the following reasons: (a)
it is designed for group administration and is a quantitatively scoreable instrument which correlates significantly with several indices of personality adjustment (5); (b) the reliability and validity of the scale has been firmly established (1), (4), (6); (c) it requires an average of thirty minutes to administer.

**Self-esteem Inventory**

Cooper's Self-esteem Inventory (SEI) (2) was administered to the subjects in a group. The only instructions given the subjects were read from the instrument as follows: "Please check each statement in the following way: If the statement describes how you usually feel, put a check in the column 'LIKE ME.' If the statement does not describe how you usually feel, put a check in the column 'UNLIKE ME.' There are no right or wrong answers." A specimen copy of the SEI is presented in Appendix B.

The SEI, developed by Stanley Cooper (2), is a fifty-eight item self-esteem inventory designed for group administration, which can be scored quantitatively to obtain a total self-esteem score and a lie score. Self-esteem scores are also obtained in the following sub-areas: (a) school, (b) self, (c) social, and (d) home.

The SEI consists of fifty self-esteem items divided in the following way, eighteen high esteem items and thirty-two low esteem items, and eight lie items. Before its
revision, the SEI obtained the total self-esteem score by
doubling the correct responses on the self-esteem items
making the total possible score on the instrument 100. With
the recent revision by Coopersmith, each correct response on
the self-esteem items is counted as one making the total
possible self-esteem score 50. An example of the high-esteem
items is, "I am pretty sure of myself." An example of the
low-esteem items is, "I get upset easily at home." An example
of the lie items is, "I never worry about anything."

The reliability of the SEI has been firmly established
by Coopersmith (2) (3). He obtained test-retest reliability
after five weeks of .88. He also obtained test-retest reliabil-
ity after three years of .70. Both of these reliability
coefficients were significantly different from zero at the
P = .01 level.

The SEI was selected to measure self-concept in this
study for the following reasons: (a) it was developed speci-
fically to measure the self-concept of adolescents and child-
ren; (b) it is a quantitatively scorable research instrument
designed for group administration; (c) the reliability and
validity of the instrument has been well established; (d) it
requires approximately twenty minutes to administer.

Procedure

The Weschler Intelligence Scales were administered to
delinquent boys in the chronological order of their arrival
at the State Training School for Boys at Gatesville, Texas. Subjects were all assigned to the training school for the first time. The WAIS was administered to boys sixteen years of age and the WISC was administered to boys thirteen through fifteen years of age. Testing was continued until fifty boys who met the criteria for the study were found. When fifty subjects were selected testing on the intelligence scales was ended and the subjects were administered the CMAS and the SEI in a group.

When pre-training testing was completed the permanent record folders of the subjects were marked to identify them as part of the study. Of the fifty subjects selected at the beginning of the study, six were eliminated. At time of post-training testing four of the original sample were on "escape" status, one had been transferred to the maximum security unit, and one had been reassigned to work outside the training school. The final or true sample for the study was thus reduced from fifty to forty-four.

Six months after the original testing the subjects were again tested on the Wechsler Intelligence Scales. The WAIS and the WISC were again administered to the proper age groups. The CMAS and the SEI were then administered by group participation to the subjects.

A team of seven raters composed of practicing clinical psychologists and other staff members employed at the training school were asked to rate each boy as to the severity of
his offense. Each boy was rated on a three point scale, with the degree of severity of offense being designated as minor, moderately severe, and severe. There were fourteen judged minor, twenty-eight judged moderately severe, and two judged severe. The two subjects judged to be severe offenders were combined with the twenty-eight subjects judged to be moderately severe offenders and these thirty subjects were then reclassified as major offenders. This reclassification made a total of fourteen minor offenders and thirty major offenders. The basic characteristics of the subjects are shown in Table I.

**TABLE I**

**BASIC CHARACTERISTICS OF THE SUBJECTS**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Sample</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minor Offenders</td>
<td>Major Offenders</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Chronological Age</td>
<td>13 - 16</td>
<td>13 - 16</td>
<td>13 - 16</td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>15.07</td>
<td>15.23</td>
<td>15.15</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>9</td>
<td>20</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Nationality</td>
<td>Anglo American</td>
<td>Latin American</td>
<td>Negro</td>
<td></td>
</tr>
<tr>
<td>Anglo American</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Latin American</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>30</td>
<td>44</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER BIBLIOGRAPHY


CHAPTER IV

STATISTICAL ANALYSIS OF RESULTS

This chapter is concerned with a statistical analysis of the data collected by the procedures described in Chapter III. The data were described in the order of their relevance to the hypotheses presented in Chapter I. Statistical analyses are described under four headings: Difference in Means for Correlated Sample, Analysis of Variance Data, Correlational Data, and Incidental Results.

Difference in Means for Correlated Sample

The significance of the difference in the means for pre-training and post-training scores was determined by Fisher's t-test for correlated samples. Comparisons were made between the means of pre-training and post-training scores for self-concept, personality adjustment, and measurable intelligence.

Self-Concept

Hypothesis 1 predicted a significant difference between the pre-training self-concept scores and the post-training self-concept scores with the post-training scores showing a gain over the pre-training scores. The obtained means for self-concept scores were, pre-training = 28.90, and post-training = 35.63. The results of Fisher's t-test computed to test Hypothesis 1 are shown in Table II.
TABLE II

_**t-Ratio between Pre-Training Self-Concept Scores and Post-Training Self-Concept Scores**_

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>S. D.</th>
<th>Difference in means</th>
<th>t-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-training</td>
<td>44</td>
<td>28.90</td>
<td>8.80</td>
<td>6.73</td>
<td>5.40*</td>
</tr>
<tr>
<td>Post-training</td>
<td>44</td>
<td>35.63</td>
<td>8.04</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*P <= .001.

An examination of Table II shows the difference between pre-training self-concept scores and post-training self-concept scores to be in the direction predicted. Table II also reveals a _t_-ratio of 5.40 (df = 42), which is significant at the _P_ <= .001 level of confidence. The _t_-ratio of 5.40 was greater than that required for the _P_ = .05; therefore Hypothesis 1 is confirmed.

**Personality Adjustment**

Hypothesis 2 predicted a significant difference between the pre-training personality adjustment scores and the post-training personality adjustment scores with the post-training scores being significantly lower than the pre-training scores. The obtained means for personality adjustment scores were pre-training scores = 21.86 and post-training scores = 15.13. The results of Fisher's _t_-test computed to test Hypothesis 2 are shown in Table III.
An examination of Table III reveals that the difference between pre-training personality adjustment scores was in the direction expected. Table III also shows a $t$-ratio of 6.67, which was significant at the $P \leq .001$ level. The $t$-ratio of 6.67 was greater than that required for the $P = .05$; therefore Hypothesis 2 is confirmed.

**Measurable Intelligence**

Hypothesis 3 predicted a significant difference between the pre-training measurable intelligence scores and the post-training measurable intelligence scores with the post-training scores being significantly higher than the pre-training scores. The obtained means for the measurable intelligence scores were pre-training scores $= 100.61$ and post-training scores $= 108.63$. The results of Fisher's $t$-test computed to test Hypothesis 3 are shown in Table IV.
TABLE IV

t-RATIO BETWEEN PRE-TRAINING MEASURABLE INTELLIGENCE SCORES AND POST-TRAINING MEASURABLE INTELLIGENCE SCORES

<table>
<thead>
<tr>
<th>Measurable Intelligence Score</th>
<th>N</th>
<th>Mean</th>
<th>S. D.</th>
<th>Difference in means</th>
<th>t-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-training</td>
<td>44</td>
<td>100.61</td>
<td>11.54</td>
<td>8.02</td>
<td>7.90*</td>
</tr>
<tr>
<td>Post-training</td>
<td>44</td>
<td>108.63</td>
<td>10.58</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*P < .001.

An examination of Table IV reveals that the difference between pre-training measurable intelligence scores and post-training measurable intelligence scores was in the direction expected. Table IV also shows a t-ratio of 7.90 (df = 42), which is significant at the P < .001 level. The t-ratio of 7.90 was greater than that required for the P = .05; therefore Hypothesis 3 is confirmed.

Analysis of Variance Data

Six analyses of variance were computed to test the sub-parts of Hypothesis 1, the sub-parts of Hypothesis 2, and the sub-parts of Hypothesis 3. Hypothesis 1 and its sub-parts were related to significant differences in self-concept scores. Hypothesis 2 and its sub-parts were related to significant differences in personality adjustment scores. Hypothesis 3 and its sub-parts were related to significant
differences in measurable intelligence scores.

**Self-Concept**

Hypothesis la predicted a significantly greater gain in self-concept scores for minor offenders than for major offenders. The obtained means for the differences in self-concept gain were minor offenders = 9.78 and major offenders = 5.30. Test of significance pertaining to Hypothesis la was accomplished by a simple analysis of variance, supplemented by the t-test. The results of analysis of variance are shown in Table V.

**TABLE V**

**ANALYSIS OF VARIANCE BETWEEN MINOR AND MAJOR OFFENDERS FOR SELF-CONCEPT GAIN**

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>192.07</td>
<td>1</td>
<td>192.07</td>
<td>2.94</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2,736.65</td>
<td>42</td>
<td>65.15</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2,928.72</td>
<td>43</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An examination of Table V reveals the value of F to be 2.94, which did not reach significance at the P = .05 level. A comparison of the means for the difference in self-concept gain between minor and major offenders shows the difference in gain to be in the direction expected. Although a significant F value was not obtained, the value of F was close enough to significance to prompt the use of the t-test for
significant difference between the means. The results of
the \( t \)-test are shown in Table VI.

**TABLE VI**

**T-RATIO FOR DIFFERENCE BETWEEN GAIN IN SELF-CONCEPT SCORES
FOR MINOR OFFENDERS AND MAJOR OFFENDERS**

<table>
<thead>
<tr>
<th>Gain in Self-concept Scores</th>
<th>N</th>
<th>Mean Gain</th>
<th>S. D.</th>
<th>Difference in means</th>
<th>( t )-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Offenders</td>
<td>14</td>
<td>9.78</td>
<td>8.62</td>
<td>4.68</td>
<td>1.71*</td>
</tr>
<tr>
<td>Major Offenders</td>
<td>30</td>
<td>5.30</td>
<td>7.51</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*\( P<.05 \).*

An examination of Table VI reveals the difference in
the mean gain for self-concept scores to be in the direction
expected with minor offenders showing a greater gain than
major offenders. The obtained \( t \)-ratio of 1.71 is signif-
icantly different from zero at the \( P<.05 \) level when the
one-tail \( t \)-test is applied. On the strength of this obtained
\( t \)-ratio, Hypothesis 1a is confirmed.

Hypothesis 1b predicted a significant difference in
gain in self-concept scores between boys thirteen and four-
ten years of age and boys fifteen and sixteen years of age,
with boys thirteen and fourteen years of age showing the
greatest gain. The obtained means for difference in self-
concept gain were thirteen and fourteen year old boys =
7.18 and fifteen and sixteen year old boys = 6.57. Compu-
tation of the test of significance for Hypothesis 1b was
accomplished by a simple analysis of variance. The results of the analysis of variance are shown in Table VII.

**TABLE VII**

**ANALYSIS OF VARIANCE BETWEEN THIRTEEN-AND FOURTEEN-YEAR-OLD-BOYS AND FIFTEEN-AND SIXTEEN-YEAR-OLD BOYS FOR GAIN IN SELF-CONCEPT**

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3.03</td>
<td>1</td>
<td>3.03</td>
<td>.04</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2,925.69</td>
<td>42</td>
<td>69.56</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2,928.72</td>
<td>43</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An examination of Table VII reveals that F failed to reach significance or to approach significance, therefore the t-test was not used to test the difference in the means for gain in self-concept for the two age groups. Although a comparison of the means of the difference in self-concept gain for the two age groups shows that the difference in gain was in the direction expected, Hypothesis 1b was not confirmed.

**Personality Adjustment**

Hypothesis 2a predicted a significantly greater gain in personality adjustment for boys committing minor offenses than for boys committing major offenses. The obtained means for the difference in personality adjustment scores were: minor offenders = 9.71 and major offenders = 5.33. Test
of significance pertaining to Hypothesis 2a was accomplished by a simple analysis of variance supplemented by a t-test. The results of analysis of variance are shown in Table VIII.

**TABLE VIII**

ANALYSIS OF VARIANCE BETWEEN MINOR AND MAJOR OFFENDERS FOR GAIN IN PERSONALITY ADJUSTMENT SCORES

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>183.20</td>
<td>1</td>
<td>183.20</td>
<td>4.42*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1,737.52</td>
<td>42</td>
<td>41.36</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1,920.72</td>
<td>43</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*P < .05.

An examination of Table VIII reveals the F level to be 4.24, which reaches significance at the P < .05 level. Since a significant F value was found, the t-test was used to further test the significance of the difference between the two means. Results of the t-test are shown in Table IX.

**TABLE IX**

t-RATIO FOR DIFFERENCE IN GAIN IN PERSONALITY ADJUSTMENT FOR MINOR OFFENDERS AND MAJOR OFFENDERS

<table>
<thead>
<tr>
<th>Gain in Personality Adjustment Scores</th>
<th>N</th>
<th>Mean Gain</th>
<th>S. D.</th>
<th>Difference in means</th>
<th>t-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Offenders</td>
<td>14</td>
<td>9.71</td>
<td>5.71</td>
<td>4.38</td>
<td>2.10*</td>
</tr>
<tr>
<td>Manor Offenders</td>
<td>30</td>
<td>5.33</td>
<td>6.53</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*P < .05.
An examination of Table IX reveals the difference in the mean gain in personality adjustment to be in the direction expected with minor offenders showing a greater gain than major offenders. The obtained $t$-ratio is significantly different from zero at the $P = .05$ level. On the basis of this obtained $t$-ratio, Hypothesis 2a is accepted.

Hypothesis 2b predicted a significant difference in the gain for personality adjustment between thirteen- and fourteen-year-old boys and fifteen- and sixteen-year-old boys, with the thirteen and fourteen year old group showing the greater gain. The obtained means for gain in personality adjustment were thirteen- and fourteen-year-old boys = 7.81 and fifteen- and sixteen-year-old boys = 6.36. Test for significance pertaining to Hypothesis 2b was accomplished by simple analysis of variance. The results of the analysis of variance are shown in Table X.

**TABLE X**

**ANALYSIS OF VARIANCE BETWEEN THIRTEEN- AND FOURTEEN-YEAR-OLD-BOYS AND FIFTEEN- AND SIXTEEN-YEAR-OLD BOYS FOR GAIN IN PERSONALITY ADJUSTMENT**

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>17.45</td>
<td>1</td>
<td>17.45</td>
<td>.38</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1,903.27</td>
<td>42</td>
<td>45.31</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1,920.72</td>
<td>43</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A survey of Table X reveals that the F value obtained failed to reach or approach significance; therefore the t-test was not used to test the significance of the difference in gain for personality adjustment between the two age groups. Although the direction of the difference in gain in personality adjustment was in the direction expected, Hypothesis 2b was not confirmed.

**Measurable Intelligence**

Hypothesis 3a predicted a significant difference in the gain for measurable intelligence between minor and major offenders, with minor offenders showing the greater gain. The obtained means for gain in measurable intelligence were minor offenders = 7.85 and major offenders = 8.10. The significance of the difference in the mean gain for measurable intelligence was tested by a simple analysis of variance. The results of the analysis of variance are shown in Table XI.

**TABLE XI**

ANALYSIS OF VARIANCE BETWEEN MINOR AND MAJOR OFFENDERS FOR MEASURABLE INTELLIGENCE GAIN

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.56</td>
<td>1</td>
<td>.56</td>
<td>.01</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1,948.41</td>
<td>42</td>
<td>46.39</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1,948.97</td>
<td>43</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The F value obtained failed to reach or approach significance; therefore the t-test was not used to test the difference between the means for gain in measurable intelligence. A comparison of the means for the difference in gain for measurable intelligence for the two groups reveals that the difference was not in the direction expected; therefore Hypothesis 3a is not confirmed.

**TABLE XII**

**ANALYSIS OF VARIANCE BETWEEN THIRTEEN- AND FOURTEEN-YEAR-OLD BOYS AND FIFTEEN- AND SIXTEEN-YEAR-OLD BOYS FOR GAIN IN MEASURABLE INTELLIGENCE**

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squared</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>80.37</td>
<td>1</td>
<td>80.37</td>
<td>1.80</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1,868.60</td>
<td>42</td>
<td>44.49</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1,948.97</td>
<td>43</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 3b predicted a significant difference in the gain in measurable intelligence for thirteen- and fourteen-year-old boys and fifteen- and sixteen-year-old boys, with thirteen- and fourteen-year-old boys showing the greater gain. The obtained means for gain in measurable intelligence were thirteen- and fourteen-year-old group = 10.36 and the fifteen- and sixteen-year-old group = 7.24. The significance of difference in the mean gain in measurable intelligence for the two groups was tested by a simple analysis of variance.
The results of the analysis of variance are shown in Table XII.

The obtained F value did not reach or approach significance; therefore the t-test was not used to test the difference between the two means. An examination of the means for the difference in gain for measurable intelligence for the two groups reveals that the difference in the gain was in the direction expected. However, as the difference was not significant, Hypothesis 3b was not confirmed.

Correlational Data

Hypothesis 4 predicted a significant positive relationship between the self-concept scores and the measurable intelligence scores for the boys tested. An examination of Table XIII shows the r between self-concept scores and measurable intelligence scores to be -.11. The r of -.11 for df = 42 was not significantly different from zero at the P = .05 level. The direction of the relationship was not in the direction expected. Hypothesis 4 was not confirmed.

Hypothesis 5 predicted a significant negative relationship between self-concept scores and personality adjustment scores for boys tested. Table XIII shows the r for self-concept scores and personality adjustment scores to be -.64. The r of -.64 for df = 42 was significantly different from zero at the P = .01 level. The relationship between the self-concept scores and personality adjustment scores was in
the direction expected. Hypothesis 4 was confirmed.

Hypothesis 6 predicted a significant negative relationship between personality adjustment scores and measurable intelligence scores for the boys tested. Table XIII shows the obtained $r$ for personality adjustment scores and measurable intelligence scores to be $-.18$. The $r$ of $-.18$ for $df = 42$ was not significantly different from zero at the $P = .05$ level. The direction of the relationship was in the direction expected; however significance was not reached. Hypothesis 6 was not confirmed.

**TABLE XIII**

*CORRELATION BETWEEN SCORES FOR SELF-CONCEPT AND PERSONALITY ADJUSTMENT; SELF-CONCEPT AND MEASURABLE INTELLIGENCE; AND PERSONALITY ADJUSTMENT AND MEASURABLE INTELLIGENCE*

<table>
<thead>
<tr>
<th>Test Variables</th>
<th>Coefficients of Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1. Self-concept</td>
<td>.....</td>
</tr>
<tr>
<td>2. Personality Adjustment</td>
<td>-.64*</td>
</tr>
<tr>
<td>3. Measurable Intelligence</td>
<td>-.11**</td>
</tr>
</tbody>
</table>

*$P < .01$.  **Not Significant.*

**Incidental Findings**

It was not the purpose of this study to investigate the
reliability of the psychometric instruments used. However, one cannot help being impressed by the high test-retest coefficient of reliability achieved by the three instruments. The \( r \) for each of the three variables tested is shown in Table XIV.

<table>
<thead>
<tr>
<th>Variables</th>
<th>( r )</th>
<th>df</th>
<th>( P )</th>
<th>Time Lapse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-concept</td>
<td>.53</td>
<td>42</td>
<td>.01</td>
<td>6 months</td>
</tr>
<tr>
<td>Personality Adjustment</td>
<td>.63</td>
<td>42</td>
<td>.01</td>
<td>6 months</td>
</tr>
<tr>
<td>Measurable Intelligence</td>
<td>.82</td>
<td>42</td>
<td>.01</td>
<td>6 months</td>
</tr>
</tbody>
</table>

Table XIV indicates that the six month test-retest \( r \) for each variable used was significantly different from zero at the \( P = .01 \) level. This high \( r \) value gives added confidence in the instruments used as well as the obtained differences between pre-training and post-training scores on the three instruments.
CHAPTER V

DISCUSSION OF RESULTS

This chapter will be concerned with a discussion of the implications drawn from the statistical results presented in Chapter IV. The variables tested in this study will be discussed in the following order so that proper relationship can be established between the results and the hypotheses of the study: self-concept, personality adjustment, and measurable intelligence.

Self-concept

The literature (4, 8, 11, 16) gives evidence that a poor self-concept is one of the most critical factors in delinquent behavior. One of the purposes of this study was to investigate the relationship between the training received in the state school for boys and the self-concept of the boys receiving the training. The assumption was made that the lack of a strong or healthy self-concept was responsible for the boy's acting out against society resulting in his being assigned to the training school. Assumption was also made that the atmosphere of the training school would be conducive to the strengthening of the boy's self-concept.

Hypothesis 1 predicted a significant increase in the self-concept score of the boys after a period of six months training. The findings in connection with Hypothesis 1
indicate that there was a significant increase in self-concept scores after a period of six months training. The pre-training mean for SEI scores of the forty-four subjects was 28.90, which was lower than the adjusted mean of 35.05 for the sample used by Coopersmith (6) in developing standardized norms for the test. The post-training means was 35.63, which was slightly higher than the mean for the normalizing sample. Taking these results into consideration, it can be assumed that boys who participate in the training program of the Texas State Training School for Boys will experience a significant positive increase in self-concept. It might also be assumed that one value of this gain in self-concept will be a positive readjustment to the environment outside the training school. These findings and assumptions are in agreement with the general trend in literature and especially with the findings of Sandhu (21) and Schofield (22).

Hypothesis la predicted a significantly greater increase in self-concept for minor offenders than for major offenders. The assumption here is that the boy will profit more from the atmosphere of the training school if he is assigned there before he has had the experiences which lead to the committing of offences which are classified as major. The findings in connection with Hypothesis la indicate that the minor offenders did have a significantly greater increase in self-concept.
scores than the major offenders. These findings are in agreement with the literature in general and especially with Terry (26) and Reckless and Davitz (20), and indicate that the assumptions made are well taken.

Hypothesis 1b predicted a significantly greater increase in self-concept scores for boys thirteen and fourteen years of age than for boys fifteen and sixteen years of age. The assumption in connection with this hypothesis is that members of the younger age group have had fewer ego-shattering experiences than the members of the older age group. The findings in connection with Hypothesis 1b did not show a significantly greater increase in self-concept scores for the thirteen- and fourteen-year-old group. One reason for this can be seen by examining Table I. It will be noted that there is no significant difference between the mean age for minor offenders and major offenders. It appears that age is not a factor in the severity of the offence nor a factor in self-concept.

Hypothesis 4 predicted a significant positive relationship between self-concept scores and measurable intelligence scores for the boys tested. The findings in relation to this hypothesis did not permit the acceptance of the hypothesis. The relationship between self-concept scores and measurable intelligence scores was not in the direction expected and the relationship did not reach significance. These findings are not in agreement with the preliminary study reported in
Appendix A. This disagreement can be accounted for on the basis of the difference in the psychometric measures used to measure self-concept in the two studies. In the preliminary study the Tennessee Self-concept Scale (10) was used. In the present study the Coopersmith Self-esteem Inventory (7) was used. These two instruments are different in scope and in the number of variables measured. The Tennessee Self-concept Scale measures a total of twenty variables, the Coopersmith Self-esteem Inventory measures a total of four variables. The Tennessee Self-concept Scale was developed by Fitts (10) in 1956 and has been subjected to adequate research. The Self-esteem Inventory was developed by Coopersmith (5, 6) between 1959 and 1967. While the SEI has been properly validated, time has not permitted extensive research on the instrument. Another difference in the two instruments is that they were standardized on two different populations. The SEI was standardized on fifth and sixth grade boys and girls. The Tennessee Self-concept Scale was standardized on subjects with a sixth-grade or above reading level. The subjects for the present study reached or surpassed the sixth-grade reading level.

The findings in connection with Hypothesis 4 are in agreement with Wattenberg and Clifford (29) and Guilford (13). These findings are also in agreement with Caplan and Powell (4), who concluded that the relationship between delinquent behavior and measurable intelligence could not
be expressed as a single fixed value.

The findings in connection with Hypothesis 4 are not, however, in agreement with Gibby and Gabler (11), Ringness (21), and Coopersmith (7).

Personality Adjustment

The literature (3, 8, 19, 27) gives ample evidence that depression and anxiety are critical factors in personality adjustment. Literature in general makes a strong claim for a high significant positive relationship between personality adjustment and self-concept, as well as a strong negative relationship between personality adjustment and delinquent behavior. One purpose of this study was to investigate the level of personality adjustment of the subjects in relation to the training they received in the training school. Assumption was made that anxiety and depression, which resulted from psychological immaturity and which was reflected in an unhealthy adjustment to society, was a causal factor in the subjects' delinquent behavior pattern. Further assumption was made that the training the subjects received in the training school would decrease the anxiety and depression, allowing the subjects to make a gain in personality adjustment.

Hypothesis 2 predicted a significant gain in personality adjustment scores for subjects after a training period of six months. The obtained pre-training mean for CMAS
Scores was 21.86, which appears to be significantly higher than the mean of 14.60 (combined mean for fourth-grade, fifth-grade, and sixth-grade boys) obtained by Lipsitt (17) in his reliability and validity study of the CMAS. The post-training mean for CMAS scores was 15.13, which does not appear to be significantly different from the mean of 14.60 obtained by Lipsitt. The findings in relation to Hypothesis 2 indicate that there was a significant gain in personality adjustment scores. These findings are in general agreement with the literature. From these findings it might be assumed that the boys who receive six months of training in the Texas State Training School for Boys will show a significant reduction in anxiety as reflected by scores on the CMAS, which can be translated into a more positive personality adjustment. It might also be assumed that as a result of this increase in personality adjustment the boys will make a better adjustment to their environments when released from the training school.

Hypothesis 2a predicted a significantly greater gain in personality adjustment for minor offenders than for major offenders. This hypothesis assumes that the minor offender will be more positively influenced by and derive greater benefit from the training received at the training school. Hypothesis 2a was confirmed. The minor offenders did make a significantly greater gain in personality adjustment than major offenders, which indicates that the assumptions made in
Connection with this hypothesis were well taken.

Hypothesis 2b predicted a significantly greater gain in personality adjustment for thirteen- and fourteen-year-old boys than for fifteen- and sixteen-year-old boys. Findings in relation to this hypothesis did not show the expected difference in personality adjustment between the two age groups. It can, therefore, be assumed that age is not a critical factor in personality adjustment.

Hypothesis 5 predicted a significant negative relationship between personality adjustment scores and self-concept scores for the boys tested. The direction of the relationship between these two variables was in the direction expected and significance was reached. The findings in relation to this hypothesis are in agreement with the preliminary study and are consistent with the literature so they do not require elaborate discussion.

Measurable Intelligence

There is a disagreement in the literature with regard to the relationship between measurable intelligence and self-concept and between measurable intelligence and personality adjustment. Ringness (21) found a positive relationship between measurable intelligence and self-concept scores. Gibby and Gabler (11) and Coopersmith (7) also found a high positive relationship between these two variables. Fink (9) found a strong relationship between achievement and self-
concept but no significant relationship between measurable intelligence and self-concept. Wattenberg and Clifford (29) failed to find a significant relationship between self-concept measures and mental test scores for first semester kindergarten children. Hurley (15) found a causal relationship between parental malevolence or rejection and measurable intelligence. Another purpose of this study was to investigate the relationship between the measurable intelligence of the subjects and the training received in the training school.

Hypothesis 3 predicted a significant increase in the measurable intelligence scores of the boys tested after a training period of six months. A significant increase in measurable intelligence scores was found. The pre-training mean for measurable intelligence for the forty-four boys tested was 100.61, which is just above the mid-point of the fiftieth percentile band for the Wechsler scales (28). The post-training mean for measurable intelligence for the forty-four boys tested was 108.63, which is at the seventieth percentile of the Wechsler scales. The findings in connection with Hypothesis 3 support the assumption that the subjects of this study did not take full advantage of social learning and environment enrichment prior to their assignment to the training school. Another assumption supported by these findings is that the atmosphere of the training school made it conducive to the boys' taking advantage of all social learning
and academic enrichment opportunities.

Hypothesis 3a predicted a significantly greater gain in measurable intelligence for minor offenders than for major offenders. Hypothesis 3a was not confirmed. The difference in gain was in the direction expected; however, significance was not reached. These results are in agreement with the findings of Haan (14), who found intelligence to be independent of social behavior in males, and with the findings of Rutter (23), who found that intelligence was not a factor of major importance in child psychiatric disorders.

Hypothesis 3b predicted a significantly greater gain in measurable intelligence for thirteen- and fourteen-year-old boys than for fifteen- and sixteen-year-old boys. Hypothesis 3b was not confirmed. The gain in measurable intelligence was in the direction expected; however, significance was not reached. These findings are in agreement with both Bradshaw (2) and Konath (16), who found no significant relationship between measurable intelligence and age.

Hypothesis 6 predicted a significant negative relationship between measurable intelligence scores and personality adjustment scores for the boys tested. The relationship between these two variables was in the direction expected. There was a low but insignificant relationship between measurable intelligence scores and personality adjustment scores. The reason for the lack of significance in relation to this hypothesis might, to some degree, be attributed to
the instrument used to measure personality adjustment. The CMAS is a well validated psychometric instrument. It has demonstrated both reliability and validity for the measurement of undifferentiated anxiety, which is a major factor in personality adjustment; however, the instrument fails to measure several other factors which affect the behavior of the individual.
CHAPTER BIBLIOGRAPHY


CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The primary purpose of the present study was to investigate the change in self-concept, personality adjustment, and measurable intelligence of delinquent boys as a result of training received in the State Training School for Boys operated by the Texas Youth Council at Gatesville, Texas. Inherent in this purpose was an attempt to isolate factors which might reasonably be assumed to identify those individuals more likely to profit from the training received.

A secondary purpose of the study was to investigate a probable causal relationship between training received and the change made in self-concept, personality adjustment, and measurable intelligence. Differences between change in these three variables for minor offenders and major offenders were also investigated, as well as differences between changes in the same variables for thirteen- and fourteen-year-old boys and fifteen- and sixteen-year-old boys.

The hypotheses for the present study were as follows:

1. There will be a significant gain in self-concept for boys who participate in the regular training program of the State Training School for Boys at Gatesville, Texas.
a. Gain in self-concept will be significantly greater for minor offenders than for major offenders.

b. Gain in self-concept will be significantly greater for boys thirteen and fourteen years of age than for boys fifteen and sixteen years of age.

2. There will be a significant gain in personality adjustment for boys who participate in the regular training program of the State Training School for Boys at Gatesville, Texas.

   a. Gain in personality adjustment will be significantly greater for minor offenders than for major offenders.

   b. Gain in personality adjustment will be significantly greater for thirteen and fourteen year old boys than for boys fifteen and sixteen years of age.

3. There will be a significant gain in measurable intelligence for boys who participate in the regular training program of the State Training School for Boys at Gatesville, Texas.

   a. Gain in measurable intelligence will be significantly greater for minor offenders than for major offenders.
b. Gain in measurable intelligence will be significantly greater for boys thirteen and fourteen years of age than for boys fifteen and sixteen years of age.

4. There will be a significant positive relationship between self-concept and measurable intelligence for boys tested.

5. There will be a significant negative relationship between self-concept and personality adjustment scores for boys tested.

6. There will be a significant negative relationship between measurable intelligence and personality adjustment for boys tested.

The .05 level of significance was used to determine the acceptability of each hypothesis and each sub-hypothesis.

The subjects used were forty-four delinquent boys assigned to the State Training School for Boys at Gatesville, Texas, for the first time. Predetermined criteria for subjects were (1) thirteen to sixteen years of age, (2) measurable intelligence of 85 or above, (3) reading level of sixth grade or above. In addition to these criteria each subject met an additional criterion of six months training in the training school.

All subjects responded to pre-training testing and post-training testing on three psychometric instruments. The Wechsler Intelligence Scales were administered to proper ages
as a selection instrument. The WAIS was administered to sixteen-year-old boys, and the WISC was administered to thirteen-fourteen- and fifteen-year-old boys. When fifty subjects meeting the predetermined criteria were found, intelligence testing was terminated.

When the sample was completed, subjects were administered two additional psychometric instruments which, together with the Wechsler scales, comprised the pre-training test battery and the post-training test battery. The Children's form of the Manifest Anxiety Scale was administered to all subjects as a measure of personality adjustment. The CMAS is a fifty-three item inventory consisting of forty-two anxiety items and eleven falsification items which are designated the Anxiety Scale and the Lie Scale. The CMAS is designed for group administration and can be scored quantitatively to obtain a total anxiety score and a total lie score.

Coopersmith's Self-esteem Inventory was administered to all subjects as a measure of self-concept. The SEI is a fifty-eight item self-esteem inventory designed for group administration, which can be quantitatively scored to obtain a total self-esteem score and a total lie score.

Six months after the original testing the forty-four subjects remaining in the sample were again tested on the Wechsler Intelligence Scales. The WAIS and the WISC were again administered to the proper age groups. The CMAS and
the SEI were then administered to the group of forty-four subjects. A team of seven raters then individually judged each subject on the basis of his case file and rated him as being either a minor offender or a major offender.

When testing had been completed and all data collected and tabulated, the results were statistically analyzed. The analyzed data was then discussed on the basis of their relevance to the hypotheses.

Hypothesis 1 was confirmed. A significant t-ratio was found between the pre-training and post-training means for self-concept scores. This finding indicated that the atmosphere of the training school increased the subject's self-confidence and gave him a realistic reason for liking himself. This self-confidence and self-liking was translated into higher self-concept scores.

Hypothesis 2 was confirmed. A significant t-ratio was found between the pre-training and post-training means for personality adjustment scores. The confirmation of this hypothesis indicates that the training experience of the subject in the training school caused a reduction of anxiety level and thus contributed to the gain in personality adjustment.

Hypothesis 3 was confirmed. A significant t-ratio was found between the pre-training and post-training means for measurable intelligence. The confirmation of Hypothesis 3...
Indicates that the training received by the subject and the environmental enrichment provided in the training program had the desired effect on the subject.

Hypothesis 1a predicted a significantly greater gain in self-concept for minor offenders than for major offenders. Hypothesis 1a was confirmed. Findings in connection with this hypothesis pertain to the secondary purpose of the present study. The minor offenders are more likely to profit by the training received.

Hypothesis 1b predicted a significant difference in the gain in self-concept between thirteen- and fourteen-year-old boys and fifteen- and sixteen-year-old boys. Hypothesis 1b was not confirmed.

Hypothesis 2b predicted a significantly greater gain in personality adjustment for minor offenders than for major offenders. Hypothesis 2a was confirmed. The t-ratio, between the mean gain for personality adjustment for the two groups was 2.10, which is significant beyond the $P = .05$ level for 43 degrees of freedom. These findings give added confidence in the assumption that minor offenders will derive greater profit than major offenders from the training received.

Hypothesis 2b predicted a significant difference in the gain for personality adjustment scores between thirteen- and fourteen-year-old boys and fifteen- and sixteen-year-old boys. Hypothesis 2b was not confirmed.
Hypothesis 3a predicted a significant difference in the gain for measurable intelligence between minor offenders and major offenders. Hypothesis 3a was not confirmed.

Hypothesis 3b predicted a significant difference in the gain for measurable intelligence between thirteen- and fourteen-year-old boys and fifteen- and sixteen-year-old boys. Hypothesis 3b was not confirmed.

Hypothesis 4 predicted a significant positive relationship between self-concept scores and measurable intelligence scores for boys tested. Hypothesis 4 was not confirmed.

Hypothesis 5 predicted a significant negative relationship between self-concept scores and personality adjustment scores of boys tested. Hypothesis 5 was confirmed. The obtained $r$ of -.64 was significant beyond the .001 level.

Hypothesis 6 predicted a significant negative relationship between personality adjustment scores and measurable intelligence scores for the boys tested. The relationship between these two variables was in the direction expected but did not reach significance. Hypothesis 6 was not confirmed.

Conclusions

The findings of the present study apply only to the subjects used and the institution to which they were assigned. These findings do, however, have some implications for similar groups and situations. There might be some danger in
drawing conclusions here because of the criticism made of the CMAS and the SEI, especially the questioning of the general purpose of the CMAS and the lack of research on the SEI. However, the following conclusions may be given some consideration.

It is concluded that the training received at the Training School is a contributing factor to the gain in self-concept by the boy. It is also concluded that the training received in the Training School helps the delinquent to reevaluate his strengths and weaknesses and to make a more realistic appraisal of himself and his relationship to his society.

It is concluded that personality adjustment as reflected by the level of anxiety is also a critical factor in delinquent behavior. When the anxiety level is high, the adolescent is propelled toward delinquency; and when anxiety is low, the adolescent is insulated against delinquency. It can be concluded that the training received in the Training School is conducive to the reduction of the level of anxiety and increasing the level of personality adjustment.

It is concluded that the boy and society would both receive greater benefit from the training received in the Training School if the delinquent were assigned to the Training School in the early stages of his "crime"career, as soon as he had committed a major offense.

It is concluded that there is no significant
relationship between age and self-concept, age and personality adjustment, and age and measurable intelligence among delinquent boys.

While there is disagreement in the literature regarding the relationship between self-concept and measurable intelligence and personality adjustment and measurable intelligence, from the results of this study we must conclude that there is no significant relationship between self-concept and measurable intelligence nor between personality adjustment and measurable intelligence in delinquent boys. It is concluded that there is a significant relationship between self-concept and personality adjustment in delinquent boys.

Recommendations

On the basis of the findings of the present study, the following recommendations are made:

1. That further research be done in this area using a more general purpose instrument for the measurement of personality adjustment. The investigator of the present study believes a more meaningful relationship between personality adjustment and measurable intelligence might then be established.

2. That subsequent research investigate more thoroughly the use of the SEI in determining the true self-concept of delinquent boys.

3. That further research investigate the self,
self-concept, self-ideal and self-ideal discrepancy of delinquent boys and the relationship of these constructs to the improvement made through institutionalized training. This type study would give a more realistic picture of the gain or self-improvement made by the subject.

4. That further research be conducted to settle the question of relationship between self-concept and measurable intelligence, and personality adjustment and measurable intelligence.
APPENDIX A

A PRELIMINARY STUDY

Statement of the Problem

There is considerable disagreement among authorities concerning the relationship between self-concept scores and measurable intelligence scores and the relationship between personality adjustment scores and measurable intelligence scores. There is also a need to investigate the relationship of these variables to the behavior pattern of delinquent boys. There is also a need to investigate how these variables vary with institutional training received by delinquent boys.

Purpose

The purpose of this study was to investigate the probable relationship between self-concept scores and personality adjustment scores, the relationship between self-concept scores and measurable intelligence scores, and the relationship between personality adjustment scores and measurable intelligence scores of delinquent boys. The data gathered in this preliminary study are to be used as part of the bases for the hypotheses formulated in the main study pertaining to the variables mentioned above.
Hypotheses

The following hypotheses are tentative. The findings of this preliminary study will give justification for refining or omitting these hypotheses from the main study which will grow out of this preliminary study.

1. There will be a significant positive relationship between self-concept scores and measurable intelligence scores of the delinquent boys tested.

2. There will be a significant negative relationship between self-concept scores and the following clinical scales on the MMPI: Hypochondriasis, Depression, Hysteria, Psychopathic Deviate, Paranoia, and Psychoasthenia.

3. There will be a significant negative relationship between measurable intelligence scores and scores on the following clinical scales on the MMPI: Hypochondriasis, Depression, Hysteria, Psychopathic Deviate, Paranoia, and Psychoasthenia.

Definition of Terms

Self-concept will be defined as the score obtained on the Tennessee Self-concept Scale (1).

Personality Adjustment will be defined as the score obtained on the Minnesota Multiphasic Personality Inventory.

Measurable Intelligence will be defined as the score obtained on the Wechsler Intelligence Scales.
Subjects

Subjects for this preliminary study were twenty-five delinquent boys assigned to the State Training School for Boys at Gatesville for the first time.

Procedure

On a prearranged day, the examiner began testing boys at the training school in the order of their arrival at the school for the first time. Each boy was tested as soon as possible after his arrival at the school. The boys were first administered the appropriate Wechsler Intelligence Scale. The WAIS was administered to boys sixteen years of age and the WISC was administered to boys under sixteen years of age. Only boys who scored 85 or above on the intelligence scales were accepted as part of the sample. When fifty boys with measurable intelligence scores of 85 or above were found intelligence testing was stopped. Twenty-five boys were then selected as a working sample. This working sample was selected by the use of a table of random numbers. The subjects were then administered the Minnesota Multiphasic Personality Inventory and the Tennessee Self-concept Scale at two different group settings. The MMPI was administered in the morning and the TSCS in the afternoon.

Results

After testing was completed, the tests scored, and the
data tabulated, the results were statistically analyzed. To test Hypothesis 1 pertaining to the relationship between self-concept scores and measurable intelligence scores the data were examined by the use of Pearson's Product Moment of Correlation, the results of which are shown in Table Ip below.

### TABLE Ip
**CORRELATION BETWEEN SELF-CONCEPT SCORES AND MEASURABLE INTELLIGENCE SCORES**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>S. D.</th>
<th>r</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-concept</td>
<td>25</td>
<td>317.40</td>
<td>34.11</td>
<td>+0.34</td>
<td>.05</td>
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<tr>
<td>Measurable Intelligence</td>
<td>25</td>
<td>96.88</td>
<td>8.80</td>
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</table>

An examination of Table Ip shows a significant relationship between self-concept scores and measurable intelligence scores. The obtained \( r \) was +.34, which for \( df = 48 \) is significant at the \( P < .05 \) level of confidence.

To test Hypothesis 2 pertaining to the relationship between self-concept scores and personality adjustment scores the data were examined by the use of Pearson's Product Moment Correlation. The same procedure was used to test Hypothesis 3 pertaining to the relationship between measurable intelligence and personality adjustment. The results of these correlations are shown in Table IIp.
TABLE IIp

CORRELATIONS BETWEEN SELF-CONCEPT SCORES AND SCORES ON THE CLINICAL SCALES OF THE MMPI AND BETWEEN MEASURABLE INTELLIGENCE SCORES AND SCORES ON THE CLINICAL SCALES OF THE MMPI

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>S. D.</th>
<th>Self-Concept $r$</th>
<th>$P$</th>
<th>Meas. Int. $r$</th>
<th>$P$</th>
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</thead>
<tbody>
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<td>Hypochondrasis</td>
<td>15.40</td>
<td>5.55</td>
<td>-.49</td>
<td>.01</td>
<td>- .34</td>
<td>.05</td>
</tr>
<tr>
<td>Depression</td>
<td>20.64</td>
<td>5.30</td>
<td>-.24</td>
<td>NS</td>
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<td>Hysteria</td>
<td>21.72</td>
<td>5.25</td>
<td>-.42</td>
<td>.01</td>
<td>- .17</td>
<td>NS</td>
</tr>
<tr>
<td>Psycho. Deviate</td>
<td>27.96</td>
<td>4.26</td>
<td>-.47</td>
<td>.01</td>
<td>- .46</td>
<td>.01</td>
</tr>
<tr>
<td>Paranoia</td>
<td>12.60</td>
<td>4.60</td>
<td>-.35</td>
<td>.05</td>
<td>- .28</td>
<td>.05</td>
</tr>
<tr>
<td>Psychoasthenia</td>
<td>31.76</td>
<td>6.02</td>
<td>-.50</td>
<td>.01</td>
<td>- .47</td>
<td>.01</td>
</tr>
</tbody>
</table>

$df = 42$

An examination of Table IIp shows the negative relationship between self-concept and personality adjustment to be high. Of the six MMPI clinical scales investigated, four $r$'s were significantly different from zero at the $P<.01$ level of confidence, and one $r$ was significantly different from zero at the $P<.05$ level of confidence, and one $r$ was not significant. However, the $r$ between self-concept and the depression scale was very close to being significant at the .05 level.

Table IIp also gives confidence in Hypothesis 3 of this study. An examination of Table IIp shows two $r$'s between measurable intelligence scores and the MMPI clinical scales to be significantly different from zero at the $P<.01$ level of confidence, two $r$'s to be significantly different from zero at the $P<.05$ level of confidence, and two $r$'s not to be significant.
Discussion and Conclusions

The findings of this preliminary study are in the direction expected. The findings in connection with Hypothesis 1, while not conclusive, give confidence in the assumption that further study in this area needs to be done. Findings in connection with Hypothesis 2 give promise of more meaningful results from a study in depth in this area.

Hypothesis 3 was not completely confirmed by the findings of this study, however, the strong relationship found between measurable intelligence and four of the six clinical scales on the MMPI, strongly suggest that further study is needed in this area.

From the findings of this preliminary study, it is concluded that further investigation should be made of the relationship between self-concept and personality adjustment, self-concept and measurable intelligence, and personality adjustment and measurable intelligence of delinquent boys.
APPENDIX B

SPECIMEN COPIES OF THE CMAS, THE SEI, AND
THE RATING SHEET FOR CRIME LEVEL

Children's Manifest Anxiety Scale

Instructions: Read each question carefully. Put a circle around the word YES if you think it is true about you. Put a circle around the word NO if you think it is not true about you.

YES  NO  1. It is hard for me to keep my mind on anything.
YES  NO  2. I get nervous when someone watches me work.
YES  NO  3. I feel I have to be best in everything.
YES  NO  4. I blush easily.
YES  NO  5. I like everyone I know.
YES  NO  6. I notice my heart beats very fast sometimes.
YES  NO  7. At times I feel like shouting.
YES  NO  8. I wish I could be very far from here.
YES  NO  9. Others seem to do things easier than I can.
YES  NO 10. I would rather win than lose in a game.
YES  NO 11. I am secretly afraid of a lot of things.
YES  NO 12. I feel that others do not like the way I do things.
YES  NO 13. I feel alone even when there are people around me.
YES  NO 14. I have trouble making up my mind.
YES  NO 15. I get nervous when things do not go the right way for me.
YES  NO 16. I worry most of the time.
YES  NO 17. I am always kind.
YES  NO 18. I worry about what my parents will say to me.
<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>Often I have trouble getting my breath.</td>
</tr>
<tr>
<td>20</td>
<td>I get angry easily.</td>
</tr>
<tr>
<td>21</td>
<td>I always have good manners.</td>
</tr>
<tr>
<td>22</td>
<td>My hands feel sweaty.</td>
</tr>
<tr>
<td>23</td>
<td>I have to go to the toilet more than most people.</td>
</tr>
<tr>
<td>24</td>
<td>Other children are happier than I.</td>
</tr>
<tr>
<td>25</td>
<td>I worry about what other people think about me.</td>
</tr>
<tr>
<td>26</td>
<td>I have trouble swallowing.</td>
</tr>
<tr>
<td>27</td>
<td>I have worried about things that did not really make any difference later.</td>
</tr>
<tr>
<td>28</td>
<td>My feelings get hurt easily.</td>
</tr>
<tr>
<td>29</td>
<td>I worry about doing the right thing.</td>
</tr>
<tr>
<td>30</td>
<td>I am always good.</td>
</tr>
<tr>
<td>31</td>
<td>I worry about what is going to happen.</td>
</tr>
<tr>
<td>32</td>
<td>It is hard for me to go to sleep at night.</td>
</tr>
<tr>
<td>33</td>
<td>I worry about how well I am doing in school.</td>
</tr>
<tr>
<td>34</td>
<td>I am always nice to everyone.</td>
</tr>
<tr>
<td>35</td>
<td>My feelings get hurt easily when I am scolded.</td>
</tr>
<tr>
<td>36</td>
<td>I tell the truth every single time.</td>
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<tr>
<td>37</td>
<td>I often feel lonesome when I am with people.</td>
</tr>
<tr>
<td>38</td>
<td>I feel someone will tell me I do things the wrong way.</td>
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<td>39</td>
<td>I am afraid of the dark.</td>
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<tr>
<td>40</td>
<td>It is hard for me to keep my mind on my school work.</td>
</tr>
<tr>
<td>41</td>
<td>I never get angry.</td>
</tr>
<tr>
<td>42</td>
<td>Often I feel sick in my stomach.</td>
</tr>
</tbody>
</table>
YES  NO  43. I worry when I go to bed at night.

YES  NO  44. I often do things I wish I had never done.

YES  NO  45. I get headaches.

YES  NO  46. I often worry about what could happen to my parents.

YES  NO  47. I never say things I shouldn't.

YES  NO  48. I get tired easily.

YES  NO  49. It is good to get high grades in school.

YES  NO  50. I have bad dreams.

YES  NO  51. I am nervous.

YES  NO  52. I never lie.

YES  NO  53. I often worry about something bad happening to me.
**Self-esteem Inventory (SEI)**

Please mark each statement in the following way:

If the statement describes how you usually feel, put a check ( ) in the column "LIKE ME."

If the statement does not describe how you usually feel, put a check ( ) in the column "UNLIKE ME."

There are no right or wrong answers

| 1. I spend a lot of time daydreaming |  |
| 2. I am pretty sure of myself. |  |
| 3. I often wish I were someone else. |  |
| 4. I'm easy to like. |  |
| 5. My parents and I have a lot of fun together. |  |
| 6. I never worry about anything. |  |
| 7. I find it very hard to talk in front of the class. |  |
| 8. I wish I were younger. |  |
| 9. There are lots of things about me I'd like to change if I could. |  |
| 10. I can make up my mind without too much trouble. |  |
| 11. I'm a lot of fun to be with. |  |
| 12. I get upset easily at home. |  |
| 13. I always do the right thing. |  |
| 14. I'm proud of my school work. |  |
| 15. Someone always has to tell me what to do. |  |
| 16. It takes me a long time to get used to anything new. |  |
17. I'm often sorry for the things I do.

18. I am popular with kids my own age.

19. My parents usually consider my feelings.

20. I'm never unhappy.

21. I'm doing the best work that I can.

22. I give in very easily.

23. I can usually take care of myself.

24. I'm pretty happy.

25. I would rather play with children younger than me.

26. My parents expect too much of me.

27. I like everyone I know.

28. I like to be called on in class.

29. I understand myself.

30. It's pretty tough to be me.

31. Things are all mixed up in my life.

32. Kids usually follow my ideas.

33. No one pays much attention to me at home.

34. I never get scolded.

35. I'm not doing as well in school as I'd like to.

36. I can make up my mind and stick to it.

37. I really don't like being a boy - girl.
38. I have a low opinion of myself.

39. I don't like to be with other people.

40. There are many times when I'd like to leave home.

41. I'm never shy.

42. I often feel upset in school.

43. I often feel ashamed of myself.

44. I'm not as nice looking as most people.

45. If I have something to say, I usually say it.

46. Kids pick on me very often.

47. My parents understand me.

48. I always tell the truth.

49. My teacher makes me feel I'm not good enough.

50. I don't care what happens to me.

51. I'm a failure.

52. I get upset easily when I'm scolded.

53. Most people are better liked than I am.

54. I usually feel as if my parents are pushing me.

55. I always know what to say to people.

56. I often get discouraged in school.

57. Things usually don't bother me.

58. I can't be depended on.
Items 6, 13, 20, 27, 34, 41, 48, 55, are Lie Defensive Scale scores (8 items). Maximum total score = 50.

There are 8 lie items.
The Rating Sheet for Crime Level

In order to establish a basis upon which to relate the severity of offense to the self-concept of the boy, will you please review the records of the following boys and make a judgement as to the severity of the "crime" of each.

Definition of Terms:

Crime: will be defined as the act or series of acts which resulted in the boy being assigned to the Texas Youth Council.

Minor Crime will be defined as any act which did not involve bodily harm and did not involve theft of more than fifty dollars.

Moderately severe crime will be defined as acts which involve theft of fifty dollars or more, robbery, breaking and entering and simple assault.

Sever crime will be defined as acts which involve aggravated assault, criminal assault, robbery with firearms and crime involving bodily harm.

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APPENDIX C

BASIC DATA OBTAINED FROM SUBJECTS

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<th>Post M.I.</th>
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### Basic Data Obtained from Subjects

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Legend:
- Pre. = Pre-training score
- Post. = Post-training score
- M. I. = Measurable Intelligence score
- SEI = Self-concept score
- CMAS = Personality Adjustment score
BIBLIOGRAPHY

Books


Hall, Calvin S., and Gardner Lindzy, Theories of Personality, New York, John Wiley and Sons, Inc., 1957.

Lamy, Mary M., "Relation of Self-perception of Primary Children to Achievement on Reading" in Human Development Readings in Research, Chicago, Scott, Foresman, and Company, 1965.


Articles


Hall, Peter M., "Identification With Delinquent Sub-culture and Level of Self-evaluation," Sociometry, XXIX (February, 1966), 146-158.


Mable, S., and H. M. Rosenfield, "Relationship of Self-concept to Experience of Imbalance in p-o-x Situations," Human Relations, XIX (September, 1966), 381-399.


Sandhu, Harjit S., "Group Sessions in a Reformatory School in Punjab (India)," Corrective Psychiatry and Journal of Social Therapy, XII (December, 1966), 393-403.

Schofield, William, "Changes in Responses to the Minnesota Multiphasic Personality Inventory Following Certain Therapies," Psychology Monographs No. 311, 1950.


Reports


____________________, Annual Report of the Texas Youth Council To The Governor, Austin, 1966.

____________________, Annual Report of the Texas Youth Council To The Governor, Austin, 1968.

Unpublished Materials


Newspapers

Houston Chronical, December 17, 1968.