

**A SURVEY
OF THE
SELF CONCEPT,
INTELLIGENCE,
AND ACADEMIC ACHIEVEMENT OF FRESHMEN STUDENTS
AT WAVERLY CENTRAL HIGH SCHOOL**

BY

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A SURVEY OF THE SELF CONCEPT,
INTELLIGENCE, AND ACADEMIC ACHIEVEMENT
OF FRESHMEN STUDENTS AT WAVERLY CENTRAL HIGH SCHOOL

A Research Paper
Presented to
the Graduate Council of
Austin Peay State University

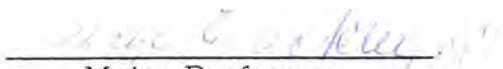
In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in Education

by
Enid Haney Barber

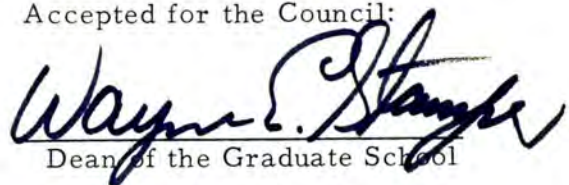
July, 1969

To the Graduate Council:

I am submitting herewith a Research Paper written by Enid Haney Barber entitled, "A Survey of the Self Concept, Intelligence, and Academic Achievement of Freshmen Students at Waverly Central High School." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts in Education, with a major in Counseling and Guidance.


Major Professor

Accepted for the Council:


Dean of the Graduate School

ACKNOWLEDGEMENTS

I wish to express my sincere appreciation to Dr. Elizabeth Stokes, and to Dr. George Ackley, Jr. for helping with this paper.

I also wish to thank the students who took the Self Concept test in preparation for the research needed in the project.

Appreciation is due to Mr. K. E. Wallace of Waverly Central High School, who allowed me to use the Lorge Thorndike Group Intelligence Test Scores and the California Reading Scores from the cumulative records of these pupils.

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CHAPTER I

INTRODUCTION

There has been much dialogue lately concerning the importance of the self concept in child growth and development. We know that it plays a very important role in the way people behave, and in the way they learn. It is one of the causes of failure in school subjects, and it determines in high degree whether one will adjust to life situations. (14)

This importance of self concept should be recognized by educators, and its relationship to learning and achieving should be identified to them.

The self concept develops to a large extent in the early years of life. The first year of life is vitally important, and each succeeding year becomes of lesser importance until the image is essentially complete before adolescence. "This is not due to the earliest period being the most impressionable, but rather to the fact that the helplessness and dependency of the child are maximum in the earliest period; therefore, his necessity is so much greater." (10)

This building of self concept occurs at a faster rate during the early years, but it continues throughout life. Therefore, the teacher must realize there is a staggering need to do something to help children and young people build a realistic attitude relative to the self. "A large proportion of the young people now entering adulthood are burdened with anxiety, hostility, defensive attitudes toward themselves and others, feelings of guilt, inferiority, or other forms of self-disparagement and self-distrust." (12)

These boys and girls present a facade to the world which indicates they know everything, are everything and do not need any help or acceptance from anyone. On the basis of empirical evidence one may realize this is not true. They have varying degrees of insecurity and feelings of unworthiness.

"Teachers who face the problem realize that the learners life at school and his relationship with his instructors and his peers have a profound psychological impact on his way of life. The school is second only to the home as a place where the social forces which influence a child's attitude toward himself and others are concentrated." (12)

With these ideas in mind, it behooves the educator to become more aware of the effect the self concept has on the learner. It is only in the area of self concept the teacher can repair much damage

from earlier life. He can do nothing about the intelligence; he can seldom help the environment; and he cannot repair losses of early learning opportunities. With some thought and planning, he can help the child accept himself. He can help him feel he is worthy, and he can contribute to the child's being more successful in school.

STATEMENT OF THE PROBLEM

The purpose of this study is to survey the self concept, reading achievement and intelligence of students in the Freshman class of Waverly Central High School and determine if there is significant correlation between these three variables.

The self concept seems to have a very direct relationship to the reading ability of adolescent boys and girls. If this can be established by empirical evidence, then the teacher might feel he could improve reading ability by augmenting self concept.

It has long been an established fact that intelligence has a high correlation with reading. If there is a correlation between self concept and intelligence, then the need could readily be seen in planning a program that would enhance the self concept of the less bright children.

It would appear the self concept of the more intelligent would be higher, and it should follow that their concept should also be more accurate than that of those who are less bright.

The final analysis of the correlation between intelligence and reading achievement would convey to the teacher whether enhancement of the self concept could improve the reading level of the child.

The subjects used in this study were one hundred children selected from the Freshman class of Waverly Central High School in the 1968-69 school year.

These students fall in the age group fourteen to sixteen, with a large number being fourteen and one-half.

For the study of self concept, the Tennessee (Department of Mental Health) Self Concept Scale was utilized as the instrument of measurement. This scale was developed by Dr. William Fitts, director of the Nashville Mental Health Center.

Intelligence scores were determined from the Lorge Thorndike Group Intelligence Test, Form B.

Reading Scores were determined by the California Reading Test.

In summary the problem has these specific objectives:

1. To determine the self concept of a group of ninth grade students
2. To determine the correlation between self concept and reading ability
3. To determine the correlation between self concept and intelligence
4. To determine the correlation between reading scores and intelligence

The study of this problem called for the making of certain predictions. It was predicted that:

1. Since it is thought that self concept has a bearing on reading, one would expect

to find a positive self concept in those students who have a high reading level

2. Conversely, those students with a low self concept, or negative self concept could be expected to have low reading achievement
3. Since intelligence and reading achievement is thought to have a high correlation, those with low intelligence would be expected to have a low reading level
4. Since intelligence and reading achievement have a high correlation, and self concept and reading achievement have a high correlation it is predicted there will be a high correlation between self concept and intelligence

SIGNIFICANCE OF THE PROBLEM

Perceptual psychologists such as Combs and Snygg (5) have pointed out for some time that the individual's perception of his ability to learn is vitally important.

In general the limits of one's ability are in part set by one's perception of ability to achieve in academic tasks relative to others.

"In the context, the self is the intervening variable between the normative pattern of the social group or the role expectation held by significant other, on one hand, and the learning of the individual on the other. We hypothesize that, for the expectations of others to be functional in a particular individual's behavior, they must be internalized and become a part of the person's conception of

himself. Although we recognize the relevance of self in all aspects of human behavior, our interest at this point is in a particular aspect of self as it functions in the school learning situation. . . . If the child perceives that he is unable to learn mathematics or some other area of behavior, this self concept of his ability becomes the functionally limiting factor of his school achievement." (3)

This research project is dedicated to the surveying of the correlation of self concept, intelligence, and reading achievement, and to emphasizing the need for enhancement of the children's self.

If one's self concept is so important that it may affect what one learns, if it is so important that it may even effect his functioning intelligence, then it is time the teacher of today be made aware of this all important fact.

ASSUMPTIONS

In conducting a study of this nature, certain basic assumptions are necessary. Human beings are changing, volatile, and unpredictable beings. What is truth at this moment may cease to be truth to this person tomorrow.

These basic assumptions must be made about this study:

1. The groups for which all three scores were available will be representative of the Freshman class of Waverly Central High School

2. That the three tests used are valid in that they measure what they purport to measure.
3. It must be assumed the children were truthful in their self ratings.

LIMITATIONS

The following limitations were placed upon the sample to represent the population of the Freshman class at Waverly Central

High School:

1. The study was limited to one hundred students of the Freshman class of Waverly Central High School.
2. It was limited by the necessity of having three different scores for each student. In order to qualify for the group a student have an intelligence test score, a self concept score, and a California Reading Achievement Test score.
3. Only students enrolled in Freshman English in periods one, three, and five were used in this study. The English classes were used to select the sample since all Freshmen are enrolled in English and theoretically everyone had an equal chance to be chosen for the study.

DEFINITION OF TERMS

Freshman Student. Those students enrolled in Freshman English in periods one, three, or five at Waverly Central High School in the 1968-69 school year.

Self Concept. For this study, self concept is defined as those statements that each member or subject ascribed to himself on the Tennessee Self Concept Scale. These statements seem to be concerned with three things: 1) This is What I am, 2) This is how I feel about myself, and 3) This is what I do. (9)

Positive Self Concept. This study defines a positive self concept as a high score on the Total Positive Scale. There is an indication those children with a good or high feeling of worth tend to like themselves, have confidence in themselves, and act accordingly.

Negative Self Concept. This study defines a negative self concept as a low score on the total Positive Scale indicating the person has a feeling of worthlessness, sees himself as not being desirable, is often unhappy and anxious, and has little faith, belief or confidence in himself. (9)

Intelligence Score. For the purpose of this study this designation will be used to indicate the score on Form B of the Lorge-Thorndike Group Intelligence Test.

Reading Achievement. In this study this designation will refer to the raw score made on the California Reading Test, Form W.

ORGANIZATION

The first chapter will present a short introduction of the study, a statement of the problem, the basic assumptions underlying the research, definition of terms and the limitations of the study.

Chapter II will give a review of the current literature on the study of the self concept in relation to achievement and intelligence and in turn its relation to the school.

Chapter III will describe the instruments used in the study, state the hypotheses, describe the survey sample and setting, and give a discussion of the research procedures.

Chapter IV will present the findings related to the hypotheses.

Chapter V will give a summary of the findings and the conclusion of the study.

CHAPTER II

RELATED RESEARCH

THE SELF CONCEPT

Before we examine the research pertinent to our study, it is important to examine what is meant by self concept.

Ruth Wylie delineates two meanings of self as 1) The self as subject or agent, and 2) The self as the individual who is known to himself. The words "self concept" have come into common use to refer to the second meaning.....(23)

Combs and Syngg (5) further outline the definition of "self concept" as, "The self concept is more or less an organized perceptual object resulting from present and past self observation... (it is) what a person believes about himself, especially during moments of crisis or chance."

Jersild (12) says the self is a composite of thought and feelings which constitute a person's awareness of his individual existence, his conception of who and what he is.

The view one has of himself is so vital to his well-being that it is important that teachers realize the supreme importance of this area of development. The teachers and the parents who are the most important "significant others" to a child need to

understand the importance of "self" to the individual.

The individual's concept of himself has been demonstrated to be highly influential in much of his behavior and also to be directly related to his general personality and state of mental health. Those people who see themselves as worthy and desirable tend to act accordingly. Those who feel they are unworthy also act accordingly. They are not able to live as fully. (9)

Self-perception determines how we will behave in certain situations. Combs and Snygg contend the self concept forms the core around which all actions occur. (5) They say the behavior of people can be determined if we understand the individual's phenomenal self. The phenomenal self is the "real" self to the individual; it is very consistent, and it is very stable.

DEVELOPMENT OF SELF CONCEPT

The self concept is thought to begin forming even before birth. There are no accurate experiments in this line, and it is thought the most prominent perception at the time of birth must be that of pressure.

The major development of the self begins with the birth of the child. His senses begin to organize the many sensory data available to him. The child continues this exploration as he first

attempts to find what is "me" and "not me."

With the development of language his sense of self concept begins to grow much faster. As he grows his family provides the significant others who give him a picture of whether he is good or bad, pretty or ugly. As he experiences his growth in the family he becomes aware of whether he is wanted or not wanted, accepted or not accepted. By the time he comes to school he has a very well formed view of self. (1)

Combs and Snygg (5) point out it is necessary for the child to protect this self at all costs. Lecky (13) says this is the prime motivator in all activity. Self consistency is necessary to preserve the identity of the self. A person who believes that his self is weak, bad, or stupid will adhere to all perceptions that bolster this picture of himself. He will refuse to see any other picture. Lecky feels this applies to learning difficulties. The child who does not feel his parents see him as bright will find it hard to learn. He is held back by his picture of himself.

Wylie (23) says there is some evidence to suggest that children's self concepts are similar to the view of themselves which they attribute to their parents. There is some evidence that a child's level of self-regard is associated with the parents' reported level of regard for him. There is some evidence to suggest that children see the like-sex

parent's self-concept as being somewhat more like their self concept.

There is some evidence to support that children with self-reported maladjustment see their parents' views of them as differing from each other.

Even though children develop the self concept at an early age, and it is fairly well formed by the time they get to school, it is still important that teachers are aware of the prime importance of the self concept in the way the child lives, works, and behaves.

SELF CONCEPT AND THE SCHOOL

Paul Campbell reported a variety of methods and studies which tend to support a low, direct relationship between self concept and achievement. Conflicting evidence indicates the need for more effort.

Although there is a conflict, the weight of the evidence suggests that self concept, as measured by several independent researchers, does make a difference. (4)

Wylie (23) reports a number of investigators have been concerned with the relationship between self concept and behavior in experimental learning tasks. The assumption is made that the self concept characteristics are antecedent to the cognitive behavior.

Sometimes it is explicitly assumed that this relationship is basically a matter of the influence of motivation upon learning.

She reported that Cowen, Heilizer, and Axelrod assumed that adjectives on which S reported large self-minus ideal discrepancies would arouse conflict in him when they were presented in a learning experiment, and that this conflict would disrupt learning. . . . in line with their prediction, S had significantly greater difficulty in learning. . .

D. Cartwright was interested in Roger's idea that experiences will be ignored or given distorted symbolization if they are inconsistent with self. With regard to memory experiment Cartwright predicted:

a. Ss will recall more accurately those stimuli which he has perceived and organized into some relationship to self, b. Maladjusted Ss will show a greater differential of this kind than will adjusted Ss. His results were, 1) significantly less efficient recall scores of inconsistent possessions by maladjusted Ss, 2) less efficient recall scores of inconsistent adjectives by maladjusted Ss on the first list of adjectives only. The list of adjectives describing "like me" and "unlike me" were thought to represent self perception and lack of self perception. (23)

Coopersmith (6) conducted research indicating a positive relationship between the self concept and academic achievement.

Bruck (18) obtained self concept measures for three hundred pupils from third to sixth grades of three public elementary schools

and from the eleventh grades of senior high school in Flint, Michigan. He found positive and significant relationships between self concept and grade point average at all levels.

A study of the self concept shows it to be a learned structure made up from comments, inferences, and actions drawn by children out of the experiences in home, school, and social group. Hamachek reported that experiments indicate a teacher can change the self concept in students by purposely teaching for self-enhancement. (11)

If the self develops in response to environmental stimuli, and that at an early age, what part can teachers play in this factor in the lives of children? It is not too late to help.

SELF CONCEPT AND READING ABILITY

There is substantial evidence to indicate a relationship between self concept and school achievement. This relationship seems to exist in a higher degree in the area of reading than in the other skills.

Brookover (2) formulated a theory which stated that self concept is developed through interaction with significant others which in turn influences one's behavior. When applied to the school learning situation, a relevant aspect of self concept is the person's conception of his own ability to learn the accepted types of academic behavior; therefore, performance in terms of school achievement is the relevant

behavior influenced. The students self concept is composed of several segments, and one of these segments is ability to learn. A study he made stated the hypothesis, "Self concept of ability in school is significantly and positively related to academic performance of students even with the ability dimension controlled." This hypothesis was supported. Underachievers in reading made significantly lower scores on measures of academic achievement. They manifested a predominantly negative perception of self, a desire to be different from the self as seen, and to a statistically significant extent, they expressed feelings of conflict more frequently. They were viewed by teachers as manifesting high problem tendency.

It is evident from these findings that, in the population studied, and in relation to the instruments used, an overachiever in reading viewed himself positively.

Performance of the underachievers in reading showed that the life experience of these children have contributed to negative feelings concerning themselves and their world. These feelings are manifested in lack of achievement. It can be stated with confidence that the group studied was influenced by his self concept in relation to his reading experiences. (1)

Bledsoe and Garrison (1) in their research found correlations of achievement factors and self concept to be significant positive

correlations between achievement and self concept for boys, non-significant correlations for girls. When the two groups were combined, thirteen out of the fourteen correlations were significantly positive. When all forty-nine correlations for the six groups on the six subtests and the total battery were considered, twenty-seven positive correlations were obtained with the median correlation being .292. Analysis of the relationships for subtests indicated that reading achievement appeared to be most closely related to the self concept since this correlation was the highest in all groups with the exception of fourth-grade boys where mechanics of English was higher. (1)

Eric's (7) study of self concept used as its third hypothesis: "Student self concept of ability is associated with academic achievement." All correlations between general self concepts of academic ability and total grade point average at each grade level was consistently above .52. Therefore the hypothesis was accepted.

Wallenburg and Clifford (21) found a significant relationship between reading development and self concept. The analysis revealed a correlation of .31, significant at the 1 percent level of confidence between the two.

Hamachek (11) says "...the findings indicate that regardless of the distinction between students having scholastic achievement as a prime goal, and those who do not, on general self-evaluation differences can be found between groups of achieving and underachieving students." This is contrary to what most research in this area finds.

Hamachek (11) reported that Fink ran a survey and concluded that a relationship does exist between adequacy of self concept and level of academic achievement. He finds the concept very clear for boys and less so for girls.

SELF CONCEPT AND ITS RELATION TO INTELLIGENCE

When one looks at the all inclusive view of phenomonological scientists, one begins to ask if it is possible one's intelligence could be influenced by his self concept. There has always seemed to be a connection between intelligence and reading ability. Is there also a connection between intelligence and self concept? Are one's perceptions so important they could even affect his level of intelligence?

Arthur W. Combs (5) suggests that this may be true and speculates that what one learns may be related to what he perceives himself capable of learning. He suggests the term "intelligence" means the effectiveness of an individual's behavior. He further defines intelligence to be "the capacity for effective behavior, the intelligence of an individual will be dependent upon the richness and variety of perceptions possible to him at a given moment."

Conversely, Bledsoe (1) found relations between self concept and intelligence factors were mostly low to moderately positive. Correlations for fourth-grade boys and sixth-grade boys were significant from zero in a positive direction, ranging from .278 for total intelligence quotient for fourth-grade boys to .411 for total intelligence quotient for sixth-grade boys. The relationship for girls was not significant from zero being positive in the case of fourth-grade girls, and very close to zero for the sixth-grade girls. Twelve of the eighteen correlations were significant from zero, all in a positive direction and median correlation for .255.

Although it would seem children with high intelligence scores would be able to understand themselves better and would have a higher self-acceptance score, this is not the case according to Jersild (12). He says high intelligence does not guarantee insight or healthy self-esteem. They do rate higher than children of low intelligence, but they do not consistently rate themselves high. This borne out by the research of Seay (18). His statistical summary involving three groups of boys, college bound, industrial arts, and juvenile delinquents found the industrial arts group of boys accepting themselves better than the college bound or the juvenile delinquents. It was supposed the college bound students had a higher intelligence quotient than the students in trade school.

In concluding this study of the literature about the self concept and its relation to the life of the child, it becomes apparent the teacher and the parent need to apply more thought to the training and self enhancement of the child.

When a child is reared in a home where abuse is the norm for the day, it is vitally important the teacher be able to do something to counteract this gradually undermining and taking away of the positive self concept of the child.

Parents of young children should be made aware of the damage they are doing their young children. It is imperative they refrain from making attacks on the child's self. He can be reprimanded; he need not be let grow at will, but he should achieve a positive view of himself. He should feel he is loved, and that he is worthy of being loved. He should feel he is an adequate human being, and he is capable of accomplishing many things.

By meeting tasks that are challenging to them, children learn to cope with the real world. Self concepts of competence in work emerge gradually, enabling the children to meet subsequent challenges with a calm confidence. Children who do not acquire a sense of competence become dissatisfied with themselves, unfriendly to those around them, resistant to authority, and perhaps rebellious against society.

From this research it would seem there is an importance which needs to be placed on trying to outline the effects of a low self concept on the school child. It would seem to be advantageous for the teacher of today to be aware of this trend and try in some way to help the child seem himself in a better light. If the self concept can be improved, not only the reading scores but the potential for achievement may be released so he can be more self actualizing in his life and more nearly achieve the level for which he is capable.

CHAPTER III

RESEARCH DESIGN

HYPOTHESES

The self concept is thought to have an all encompassing influence on the life of the child. This study is undertaking the task of testing for correlation between intelligence factors, reading achievement and the self concept.

The subjects covered were those in Freshman English at Waverly Central High School.

The null hypotheses to be tested are as follows:

1. There is no significant relationship between the self concept and reading achievement.
2. There is no significant relationship between self concept and intelligence.
3. There is no significant relationship between intelligence and reading achievement.

These variables were surveyed and tested by the use of the response of the subjects to the Tennessee (Department of Mental Health) Self Concept Scale, the Lorge Thorndike Group Intelligence Test, Form B and the W Form of the California Reading Achievement test.

DESCRIPTION OF THE SUBJECTS

Freshman Students: These students were students enrolled in ninth-grade English classes in periods one, three and five in Waverly Central High School. They consisted of girls and boys, of white and black, of rural and urban, of culturally deprived and of the affluent, and of a cross section of ability and academic achievement.

The students were chosen because of their availability, and they were chosen by random selection of English classes from the Freshman class.

After receiving permission from the principal, these students were asked to take the Tennessee Self Concept Scale. They were told they could have the report on themselves if they wished at a later date.

The other scores, on intelligence and reading tests, were obtained from the cumulative records of these students.

One limiting factor was the necessity of having all three scores. If any score was absent, that student could not be used.

The students took the test in one sitting. The directions were read to them, and then they were allowed to continue at their own speed.

The clinical and research form of the answer sheet was used.

DESCRIPTION OF THE INSTRUMENTS

The Tennessee Self Concept Scale was developed to fill the need for a scale which could be used in counseling and also in research. Since the individual's self is so important to the understanding of people, it is important to have an easily scored test for ascertaining this variable. This scale can be used for either counseling or research.

The Scale consists of one hundred self descriptive statements which the subject used to portray a picture of himself. It is self administering and it can be used with subjects age twelve or up and those who have a sixth-grade reading level. It has a variety of uses, both in the counseling of healthy people and in spotting the psychotic.

The Scale is available in two forms, a Counseling Form and a Clinical and Research Form. Both forms use the same test booklet and test items. The differences come in the scoring and profiling. The Counseling form is quicker to score. It takes about six or seven minutes to score the Counseling form. It was only the Total Positive Scale which was used in this research.

This scale was developed by compiling a large pool of self-descriptive items. These original items were taken from several other self concept measures including those developed by Balester, Engel, and Taylor. Items were also from written self descriptions of patients and non-patients. After considerable study, a phenomenological system was developed for classifying items on the basis of what they were saying. This evolved into the two-dimensional, 3 x 5 scheme employed on the score sheet of both forms. Items were included when the judges agreed on them. The final selection of ninety items in addition to the ten items from the L-Scale of the Minnesota Multiphasic Personality Inventory made up the Tennessee Self Concept Scale. The Scale includes fifty items that are positive statements and fifty items that are negative statements about the self.

The Scale is arranged into a three by five frame composed of the three dimensions: 1) Identity (What I am)--this is the picture of the subject as he sees himself; 2) Self-satisfaction (How I accept myself)--this shows to what degree the subject accepts himself; 3) Behavior (How he acts)--this is a view of his behavior as he sees it. The five frames of self concept are: 1) Physical Self - How he perceives himself physically; 2) Moral-Ethical Self - This scale lets the subject rate himself morally-ethically; 3) Personal Self - The subject gives a rating on his personal worth; 4) Family

Self - In this he looks at himself as a member of his family; and

5) Social Self - This frame presents his view of himself as a member of society.

In addition to this three by five frame of reference of self concept the Scale yields these scores:

1. Self Criticism Score (SC). This is composed of the ten items taken from the Minnesota Multiphasic Personality Inventory. These are slightly derogatory statements which are true of most people. This is a measure of defensiveness.

2. The Positive Score (P). These scores derive directly from the phenomenological classification scheme already mentioned. The Total P Score is the most important single score on the counseling form. It reflects the overall level of self-esteem. Persons with high scores tend to like themselves, feel that they are persons of value and worth, and have confidence in themselves and act accordingly. People with low scores are doubtful of themselves; often feel anxious or depressed.

This positive score was the one with which this paper has been concerned.

3. Variability Score (V). These scores indicate the amount of variability or inconsistency from one area of self perception to another.

4. The Distribution Score (D). This is a survey of how the subject distributed his answers across the board.
5. True-False Ratio. This measure indicates a strong tendency to agree or disagree.
6. Net Conflict Scores. This measure has a high correlation with the T/F ratio. It indicates a conflict between positive answers in the same frame of reference.
7. Total Conflict Scores. This score measures the total amount of conflict found in the answers on the scale.
8. Empirical Scales. These were derived by item analysis, with a resulting selection of those items which differentiated one group of subjects from all other groups.
 - a. Defensive Positive Scale (DP).
 - b. General Maladjustment (GM).
 - c. Psychosis Scale (Psy).
 - d. Personality Disorder Scale (PD).
 - e. Neurosis Scale (N).
 - f. The Personality Integration Scale (PI).
9. Number of Deviant Signs Score. This is currently thought to be the best predictor of deviant behavior.

The subject is asked by this test to measure his self concept in relation to five possible answers:

Completely false	Mostly false	Partly False and partly true	Mostly true	Completely true
1	2	3	4	5

Norm Groups. The norms were developed from a sample of six hundred and twenty-six people. The sample included people from various parts of the country. They ranged from the age of twelve and sixty-eight. Both sexes were represented, both Negro and white subjects, representatives of all social, economic and intellectual levels, and educational levels from sixth grade through Ph.D. level. (9)

The author points out the sample is skewed toward college students, white subjects, and persons in the twelve to thirty bracket. He indicates so far there seems to be no need to establish norms for sex, race, age and other variables. (9)

Reliability. The test-retest reliability coefficients of all major scores are listed in the manual. Congdon used a shortened version of the Scale and obtained a reliability coefficient of .88 for the Total Positive Score.

Other evidence of reliability is found in the remarkable similarity of profile patterns found through repeated measure of the same

individuals over a long period of time. Related to this is the fact that reliability coefficients for the various profile segments used in computing the NDS score fall mostly in the .80 to .90 range. (9)

Validity. The author reports validation procedures are of four kinds: (1) Content validity, (2) Discrimination between groups, (3) Correlation with other personality measures, and (4) Personality changes under particular conditions. (9)

The California Achievement Test-Reading. The Reading Vocabulary Test is composed of sixty items, each of which consists of a key word, the word to be selected, and three distracters. The student must choose the word that means the same as the key word. The first forty-five items are divided among the principal areas of the school curriculum: Section A, sampling mathematics vocabulary; Section B, science vocabulary; and Section C, social science vocabulary. Also included is a fifteen item section on general vocabulary, Section D, which provides further measurement of reading vocabulary.

Reading vocabulary is an essential factor of a reading achievement test, since a good vocabulary is a necessary element in the development of reading comprehension skills.

Test two of the Reading test is a Reading Comprehension Test. It is designed to reveal the student's comprehension of what he reads and to enable the teacher or counselor to make a diagnosis of specific

difficulties which cause problems in reading. In addition, this analysis will reveal strengths and weaknesses in several general areas among which are: following specific instructions, finding sources and doing reference work, comprehending factual information, making proper inferences, and drawing valid conclusions from materials read.

The test is divided into three sections which sample twelve different essential functional elements. (9)

Norm Groups. The California Achievement Test involved 15,351 administrations of the achievement battery. This included the re-administration after a one-year interval of this test to 1,884 students within a single school system in order to assess the test-retest reliability of the instrument. (19)

Reliability. Coefficients of reliability were computed using Kuder-Richardson formula 21 on the California Achievement Tests. The Reliability Coefficient of .95 was established for Reading Vocabulary and Reading Comprehension.

Validity. These items in the California Achievement Tests, on which the validity ultimately depends, have been selected to measure many of the most universal subject matter objectives of the curriculum. Curricula may differ in school systems; but the basic skills, or tools of learning, are similar in all schools. Statistical evidence is given

in the form of phi coefficients to support the validity of the instrument. (19)

Lorge-Thorndike Group Intelligence Test. This is a group intelligence test which is used in this county to get a rough check of the ability levels of the children. These students were given a non-verbal form of the test.

Norm Groups. This test has been standardized on one hundred and thirty-six thousand children from kindergarten to high school. The children were sampled so as to provide proportional representation of the various socioeconomic levels in the United States. (16)

CHAPTER IV

TREATMENT OF DATA

The purpose of this study was to test the correlation between self concept and intelligence; self concept and reading achievement; and intelligence and reading achievement. To accomplish this the null hypotheses were used. A correlation was determined between the three variables.

The hypotheses were tested by a Pearson Product - Moment Correlation Coefficient. It was decided the computational formula for raw scores would be employed:

$$r = \frac{\frac{\sum XY}{N} - M_x M_y}{\sigma_x \sigma_y}$$

The scores were paired for each correlation. The mean and standard deviation were determined and a Pearson Product Moment Correlation computed for each set of data.

The 1 percent significant level of confidence was tested by the use of table D in Underwood's Elementary Statistics. "Testing the significance of \underline{r} for the 5 percent and 1 percent levels of confidence. Wherever \underline{r} is equal to or greater in absolute size than the appropriate significant value, regardless of whether \underline{r} is positive or negative, we can

conclude that it is significant at the level of confidence we are using." (20)

REPORT OF FINDINGS

TABLE I
TENNESSEE SELF CONCEPT SCALE COMPARISONS

	Number	Mean	Standard Deviation
Norm Group	626	345.57	30.70
Sample Group	100	318.85	56.90

From this table one can see the self concept mean of the Waverly group does deviate significantly from the norm and suggests that the self concept is significantly lower than the national self concept.

TABLE II
LORGE-THORNDIKE INTELLIGENCE TEST

	Number	Mean	Standard Deviation
Norm	136,000	100	16
Sample	100	105	11.92

The Lorge-Thorndike is a group intelligence sampling instrument. This statistical information was obtained from Form B of the Verbal Scale. This test of course does not allow for any language difficulty.

The sample group tested a little higher than the average child would be expected to test, but it is well within expected limits of variation.

TABLE III

CALIFORNIA READING ACHIEVEMENT TEST

	Number	Mean	Standard Deviation
Norm	1,481	60	23.9
Sample	100	70.59	21.87

On the basis of a raw score on the California Reading Test it is indicated that the students at Waverly Central High have a slightly better than average reading achievement but again it is within the limits of means that may be expected by chance selection.

TABLE IV
PEARSON PRODUCT MOMENT CORRELATION
FOR
SELF CONCEPT AND READING ACHIEVEMENT

	Mean	Standard Deviation	r
Self Concept	318.85	56.90	.123
Reading Achievement	70.59	21.87	

Although there is a low to moderate positive correlation between self concept and reading achievement, it is not supported at either the 1 percent or 5 percent level of confidence. This supports the null hypothesis: "There is no significant relationship between the self concept and reading achievement."

This tends to bear out the research of Paul Campbell. (4) He found a conflict among researchers as to whether the self concept did make a difference in the achievement of children.

The findings of this study are in conflict with the findings of Bledsoe, Brookover, Wallenburg and Clifford, Boreston, Hamachek, and the Educational Research Council of the Department of Education. (1, 2, 21, 11, 7) They reported a rather high correlation between reading ability and self concept.

TABLE V
PEARSON PRODUCT MOMENT CORRELATION
FOR
SELF CONCEPT AND INTELLIGENCE

	Mean	Standard Deviation	r
Self Concept	318.85	56.90	
Intelligence	105	11.92	-.031

This information supports the null hypothesis, "There is no significant relationship between self concept and intelligence." This supports the findings of Bledsoe (1) saying that the relationship between self concept and intelligence factors were low to moderately positive.

Jersild (12) also does not find a positive relationship between self concept and intelligence.

TABLE VI
PEARSON PRODUCT MOMENT CORRELATION
BETWEEN
INTELLIGENCE QUOTIENT AND READING ACHIEVEMENT

	Mean	Standard Deviation	r
Intelligence	105	11.92	.581
Reading Achievement	70.59	21.87	

This correlation is significant at the 1 percent level of confidence. It does not support the null hypothesis, "There is no correlation between Intelligence Quotient and Reading Achievement."

There is a correlation, and a rather high one, between reading and intelligence quotient. This is also supported in the literature.

In conclusion the data from the investigations was taken from a small sample of the population. It is suggested that more research needs to be conducted to ascertain why the self concept of the Freshman students at Waverly Central High School did not show a positive correlation with reading.

There is evidence for investigation into the reason for such low self concept of the students. Some questions which need to be answered are, "Is the school a predisposing factor in this low self concept? Are the students not answering truthfully on the self concept scale? Would a retest give the same type of information? Is there some way to elevate the self concept of these children?"

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

This study was done in order to survey the self concept, intelligence, and reading ability of the students in the Freshman class of Waverly Central High School in the 1968-69 school year. It was originally assumed there would be a significantly positive correlation between the self concept and the variables, intelligence and reading ability.

In connection with this survey a correlation coefficient was computed to ascertain what degree of correlation exists between self concept and intelligence; self concept and reading achievement and reading achievement and intelligence.

The group was selected at random from the Waverly Central High School Freshman class.

The Tennessee Self Concept Score, developed by William Fitts was used as the instrument for assessing the self concept.

The Intelligence Quotient scores were taken from the cumulative records. This score was secured by giving a Form B, Verbal, Lorge-Thorndike Intelligence Test.

The Reading Score was taken from Form W of the California Reading Achievement Test. This Score was also secured from the cumulative records.

To determine whether or not there was a correlation between these measures, the null hypotheses were established and tested by the Pearson Product Moment Correlation coefficient.

The null hypotheses, 1) "There is no correlation between reading achievement and self concept, and 2) There is no correlation between intelligence and self concept," were both accepted and proved.

The null hypothesis, "There is no correlation between intelligence and reading achievement," was rejected. There is a high level of correlation between the two.

From the research there should have been a significant correlation between reading and self concept, although there has been some research to the contrary.

The correlation between intelligence and self concept usually shows up very low, but it seems unusual that it should show such a low negative correlation.

The correlation between intelligence and reading achievement is supported in the literature.

CONCLUSIONS

The null hypothesis, "There is no relationship between self concept and intelligence," was supported so well, it would seem there would not be a great likelihood of improving the intelligence by improving the self concept. It still remains to be noted, the enhancement of the self concept contributes to the happiness of the child. Therefore, the educator should still consider this one of his most concerned areas.

The null hypothesis, "There is no relationship between self concept and reading," was also supported. This correlation showed a low correlation on the positive side. Other researchers have found more evidence to show a higher correlation. It would behoove educators to be concerned with the self concept of the child. It is possible this self concept becomes bruised by situations in the school room. It is possible this correlation would show up more significantly at a lower age level.

The null hypothesis, "There is no relationship between reading achievement and intelligence scores," was not supported. Since this is a variable in the reading level of children, it is important teachers and others concerned with them are aware a child has more difficulty reading if he does not have a relatively high level of intelligence.

The California Reading Test's norms, (testing children's reading ability in strict correlation with their intelligence and their maturity) seems to provide one way of providing for the difference in intelligence and maturity when testing reading achievement.

Since the scores of the children in Waverly Central High School were so extremely low, it seems there should be some sort of survey made to try to determine the cause of the low self concept in these children.

Although we have failed to determine that self concept is causative as to low reading ability, still it would be wise for teachers and counselors to continue dealing with students feelings about themselves, realizing a specific approach may possibly be harmful, but also that no approach at all, from anyone will be more so. (4)

In conclusion, the self concept is an outgrowth of his experiences; it is largely achieved through contact with others. This is important. If the teacher has an adequate picture of himself, he will be more likely to help the child. The behavioral scientist stress that a person will behave as he sees himself. Maslow's hierarchy lists self esteem and the need for self actualization as a basic drive. (12) It is in this area the teachers and educators might help most.

RECOMMENDATIONS

1. More study is needed to identify why these children score on the self concept scale as they do.
2. There is a need to determine the reasons why the self concept and intelligence quotient were as divergent from those reported in other studies.
3. There is a need to determine if the self concept can be enhanced, and if so, how it may be enhanced.
4. There is a need to determine the age groups at which the self concept is most amenable to positive or negative change.
5. It is recommended that teachers should be made more aware of their effect upon the self image of the children they teach.

This is not a proposal that teachers should try to take on or pretend that they are psychiatrists or highly trained counselors. A teacher does not need to assume a role that is entirely new or different. As a teacher he is already in a psychological role; he can have a profound effect on his pupils, for better or worse.

What a teacher does and says often helps children to discover their resources and their limitations. He is the central figure in countless situations which can help the learner to realize and accept himself or which may bring humility, shame, rejection and self-disparagement.

A teacher should gain a clear conception of what their psychological function is, and what it might be, and then he should discover the kind of selection, training, and experience which might bring it to the fullest development. If he could do this the result would be much better for the children of the schools of today. (12)

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