Model Study of Laterally Loaded Piles in Sand

Jeong- Shwu Liu

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UNDERSTANDING AND ACCEPTING SELF
-A MEASURE OF SELF IMAGE GROWTH-

BY

-WANDA M. LIGHTFIELD

A thesis submitted in
partial fulfillment of the requirements for the
degree Master of Science, Major in
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UNDERSTANDING AND ACCEPTING SELF

-A MEASURE OF SELF IMAGE GROWTH-

This thesis is approved as a creditable and independent investigation by a candidate for the degree, Master of Science, and is acceptable as meeting the thesis requirements for this degree. Acceptance of this thesis does not imply that the conclusions reached by the candidate are necessarily the conclusions of the major department.

Thesis Advisor

Date

Head, Guidance and Counseling

Date
A special thank you is extended to Dr. Allan Lindstrom, thesis advisor, for his guidance in this research.

The writer also wishes to express her gratitude to Tom Waters, Dr. Maynard D. Cochrane, and Dr. Dean Hofland, for their comments and suggestions for improving the research.

A special expression of appreciation to the panel of three judges, Gretchen Dewall, Karen Untereker, and Marilyn Peterson.

No words can express the deep gratitude for the help of this writer's family: Tim, for helping devise the song, Yvonne and Sybil, for helping make the puppets, Adam and Wannita, for being trial subjects for the experimental treatment, and husband, Bill, for his constant support throughout the study.

WML
To Mom and Dad

Anna Mae and Arthur H. Tesch
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CHAPTER I

INTRODUCTION

Teachers are sometimes overwhelmed by the task of planning experiences for children that will lead to the development of process concepts. The teaching and testing of facts seems so much simpler and less demanding that it offers a temptation to ignore the more serious goals of education in a free society.

A humanistic development in contemporary education is the growing emphasis placed on the student's subjective and personal evaluation of himself. Such an evaluation is a dominant influence on his success in school. This development is needed because the self concept has been virtually ignored by psychology and largely overlooked by education. Teachers are provided with a set of unifying principles which ties together seemingly unrelated aspects of life in classrooms and allows them to understand and influence the conduct of students. It is humanistic because it cares about the individual and is primarily concerned with what takes place in his personal world.

A child's slowly emerging self image is developed from the day of birth. Parental feelings about the child are the most important component of his self image. How the teacher feels about him also matters. To be valued by an important
person in his life is not just a nice experience; it is a vital one.

Wylie (1966, p. 16) feels that "positive self-image is a necessity to a free citizen in a democratic society; nursery school is that society in microcosm."

STATEMENT OF PROBLEM

The purpose of this research was to develop and test a technique which emphasized planned self image learning experiences for children in a Head Start program. The goal of the program was to allow four- and five-year-olds the opportunity to explore and begin to discover and know themselves. The series of four experiences used in this study was developed by the author to appeal to young children, be within their range of physical and mental capabilities, and have a positive effect on self concept of body image. The hypothesis thus reads: When children are given opportunity to explore their individuality at an early age, significant steps can be taken toward understanding and accepting of self as related to body image growth when measured by the children's response to a draw-a-man test.

IMPORTANCE OF THE STUDY

The least known and least explored concept of body is that which has been formulated in terms of body image. Body
image is a term which refers to the body as a psychological experience, and focuses on the individual's feelings and attitudes toward his own body.

Very little has been done in the way of developing meaningful behavioral objectives in the area of self image growth in children. Kapfer and Ovard (1971 p. 97) state: "These less tangible goals are an important part of the educational picture but do not appear in curricular planning because of the difficulty in evaluating progress of students."

A study to determine the relationship of self concept and school achievement by Purkey (1970, p. 27) points out data do not provide clear-cut evidence concerning which comes first—a positive self concept or scholastic success, a negative self concept or scholastic failure. However the literature does stress a strong reciprocal relationship and gives us reason to assume that enhancing the self concept is a vital influence in improving academic performance.

PROCEDURE FOLLOWED

In gathering data for this study, the experimental method of research was used with particular emphasis on the single group technique.

Experience One (see page 18) was presented as a pilot study at three Head Start Centers; Waubay, Sisseton, and Summit, South Dakota. Each session was recorded to allow further evaluation of the technique.
A pre and post draw-a-man test was devised to evaluate the change in self concept. The pre test was administered to the Head Start children enrolled at the Waubay Center. The experimental treatment, Experiences Two, Three, and Four, (see pages 19-22) was then presented to the eleven subjects. The post test was given.

The pre and post tests were judged by a panel of three graduates of the Guidance and Counseling Program at South Dakota State University who had completed the course, individual testing. The Goodenough-Harris Drawing Test Manual was the guide used by the judges along with a form developed by the author to record the individual test scores. The pre and post tests along with the form for evaluation are included in APPENDIX A.

LIMITATIONS OF THE STUDY

Head Start children in Waubay, South Dakota were the subjects of this study. The Waubay Center was selected as a representative center of the initial three trial centers, to develop this self image learning experience. Children ranged in age from three to five years of age.

The experimental treatment, consisting of Experiences Two, Three, and Four, extended over a three-week period. This researcher spent two mornings during each of the three weeks in the Head Start Center. The groups of three to four
children were involved fifteen minutes in each of the three experiences comprising the experimental treatment. On these six occasions each child had an opportunity to take part in each experience once.

CHARACTERIZATION OF TERMS

Self Concept

Probably the most salient feature of each person's phenomenal world is his own self—the self as seen, perceived, and experienced by him. This is the perceived self or the individual's self concept. The terms self concept is much more commonly used than the simpler term self, because man is not always aware of his absolute, true, or actual self, but only of his own concepts and perceptions of himself. The self concept or self image is learned by each person through his lifetime of experiences with himself, with other people, and with the realities of the external world.

Body Image

The term body image, as used in the context of this paper, refers to the individual's perception of his own body. Within this context, it follows that body image is one part of self concept; the concept an individual has of his total body make-up and his attitude toward that body. The two terms are used interchangeably within this paper since the study is concerned with the development of body image as a
step toward self concept growth. The alternate combination of these terms—body concept and self image—are also used and further indicate the very closeness of meaning of these terms as viewed in the context of this paper.

Head Start

Head Start is the Federally supported educational program for four-year-olds. In most cases, the children are from low-income homes. The program is aimed at helping these children prepare for entrance into kindergarten. Much emphasis is placed on health needs and the development of self. The volunteer program, with much parental involvement, provides individual attention for the children.
CHAPTER II

SOME PERTINENT LITERATURE

The review of literature is divided into three parts. The first section pertains to the very beginning of self concept growth within the family. The second section reviews pre school programs that are designed for self image growth. The last section presents an overview of the various studies involving self concept growth that used figure drawings.

BEGINNING OF SELF CONCEPT

Although theories of self concept development vary considerably, there is general agreement that the self concept does not exist at birth. Symonds (1951, p. 62) has described the origin of the self concept as follows:

The self as a percept is not present at birth but begins to develop gradually as perceptive powers develop. ... The self develops as we feel ourselves separate and distinct from others, but the first differentiations are dim and hazy. It is probably true that one learns to recognize and distinguish others before one learns to recognize and distinguish the self. ... As the recognition of the familiar face takes shape, vague notions of the self simultaneously develop. As the mother begins to take shape as a separate person the baby forms vague notions of himself as a separate individual.

As a result of exploratory activity and experience with one's own body the boundaries of the self begin to be defined. This occurs by approximately six or seven months
of age. During this very early period in life, the individual's self concept is based almost entirely on his own perceptions of himself. Later his view of himself is based to a much greater extent upon the values he acquires from his interactions with other people. The development of language enables the child to make sharp distinctions between himself and the rest of his world and to symbolize and understand his experiences.

The earliest interpersonal relationships involve the individual and members of his family. Combs and Snygg (1959, p. 134-135) stated:

No experience in the development of the child's concepts of self is quite so important or far-reaching as his earliest experiences in his family. It is the family which introduces a child to life, which provides him with his earliest and most permanent self definitions. Here it is that he first discovers those basic concepts of self which will guide his behavior for the rest of his life.

These studies point out the growing developmental character of self concept. The importance of body image to our culture as a whole is obvious in terms of the widespread expenditure of time and effort that is given to altering the body's appearance. Individuals are constantly seeking to change their appearance by means of clothes, bleaches, skin preparations, cosmetics, tattooing, and even plastic surgery to make themselves look more like some ideal image.
PRE-SCHOOL PROGRAMS FOR SELF IMAGE GROWTH

If large scale pre-school programs are to be justified, effects in the areas of intellectual growth, achievement performance, and personal-social growth must be observable in children several years after pre-school experience and must be measurable by standardized methods. Since the self concept is related to future aspirations and academic achievement, value training appears to be an important outcome of pre-school education. The Thomas Self-Concept Values Test developed by Thomas (1967) includes fourteen value factors. Each child tested is asked to respond to a set of items which indicate how he perceives himself. A polaroid print of the child helped him to gain objectivity as he thought of himself in relation to another's perception of him. The test was developed to assess personal self concept values of pre-primary and primary aged children.

A booklet written by Graham was designed to meet some immediate needs for the first summer session of Project Head Start. The booklet includes methods that have been used in privately sponsored centers and have proved valuable in coping with problems encountered in those centers. Six basic objectives are given, one reads . . . "there are many ways to build self image or self respect in children. One way is to learn respect for others by giving each child some personal possession."
Head Start was conceived in part, to increase the ordinarily reduced number of connections between the child and other people. Two-thirds of the students, or 978 children in the Delaware Summer Head Start Programs (1965) were given a pretest on eleven tasks from the self social symbols tasks. Nine hundred and forty-five of the children were posttested along with non Head Start children of a comparable background which were used as a control group and tested in their homes at the same time as the Head Start students.

Results of the test showed that the Head Start experience produced positive changes in self and self-other relationships. Head Start children gained a perception of self as being similar to others and tended to maintain self as central. The control group showed a shift toward lower self esteem and a lack of change from a self-different to a self-same response.

At the 1970 White House Conference on Children, a forum identified some of the factors influencing the emergence of identity during the critical childhood years. The report presented by this forum pointed out that a child . . . .

. . . must be taught almost from birth about his own individuality. The many aspects of total identity include family, physical self, sex, ethnic and cultural, religious, and intellectual identity. Some obstacles to the emergence of healthy identities include a variety of widely held cultural assumptions contrary to present-day evidence concerning the nature of child development.
In an investigation of the relationship between children's perceptions of themselves and their world while in kindergarten and their subsequent achievement in reading in the first grade, Lamy (1965) found that these perceptions, obtained from inferences made by trained observers, gave as good a prediction of later reading achievement as intelligence test scores. When intelligence quotient and self-evaluations were combined, the predictive power was even greater. In concluding her study, Lamy suggested that the perceptions of a child about himself and his world are not only related to, but may in fact be causal factors in his subsequent reading achievement.

Staines found that it is possible to teach so that, while aiming at the normal results of teaching, specific changes can be made in the child's self image. The study concluded that changes in the child's self concept do occur as an outcome of the learning situation, and that the self must be recognized as an important factor in learning. Teaching methods can be adapted so that definite changes of the kind sought will occur in the self without injury to the academic program in the process.

STUDIES USING FIGURE DRAWINGS

In studying the developmental sequences of children's drawing behavior, Cratty (1969) points out three stages. Scribbling is the first stage which moves to the diagram
phase and finally the pictorial phase.

The final stage in graphic behaviors has been termed the pictorial phase. Simple pictures which usually consist of familiar objects, houses, trees, the sun, and people are attempted by the child during this phase. . . . The several stages through which the child passes in his attempts to draw human figures are: (a) Circles with marks in them or around them. (b) Circles with marks in and around them, assuming human form. (c) Circles with approximate representations of the parts of the face. (d) Round faces with legs and arms coming directly from the face. (e) The appearance of fingers and trunk. (f) The increased refinement of the figure, including emphasis on eyes, eyebrows, fingers, feet and attempts at facial expression.

By the age of five and six, then, the child deliberately draws parts of his environment, instead of producing them accidently. . . . These more advanced skills are highly related to any special training the child might have received during middle and late childhood.

In a study conducted by the Child Development Evaluation and Research Center at Texas University, an attempt was made to establish the theory that a child's personality development concerns the conceptions he has of himself. It was posited that two important influences upon these conceptions are: (1) interpersonal relationships and (2) physical environment. To test these postulates, 39 subjects of this study were placed in an experimental class presided over by mothers with no teacher training and with a ratio of one adult to four children. The remaining preschoolers attended a regular Head Start class. It was hypothesized that all subjects would demonstrate greater sensitivity to their own selves at the conclusion of the six-
week summer program than they had at the beginning and that the children in the experimental class would show a more significant change in accuracy of self perception than the others because of the low adult-child ratio. A doll-self point task and a draw-a-person task were used as pre tests and post tests. The results from these tasks supported the first part of the hypothesis and, with reservations the second part. Although the experimental class group showed significantly greater increases in self drawing scores, they also had higher pre test scores.

Numerous studies support the concept that underachievers tend to have negative self concepts. A tendency toward immaturity of behavior was reported by Bruck and Bodwin (1962), who studies students from grades three, six, and eleven, and found a positive relationship between educational disability and immature self concepts as measured by the Self Concept Scale of the Machover Draw-A-Person Test.

Machover (1949) postulates that an individual's spontaneous drawing of the human figure represents in many ways a projection of his own body image.

In reviewing the range of studies involving figure drawings, however, a large number of them are concerned with issues far removed from body image. Many studies of children's figure drawings have been concerned with the effectiveness of figure drawing as a measure on intelligence, person-
ality pathology, and personality conflicts. A number of analyses have been made of the developmental shifts shown by children in the way they represent the body with increasing chronological age.

Crovetto, Fischer, and Boudreau developed a modified Head Start curriculum specifically designed to effect the child's self concept in a positive direction. When the experimental group of students was compared with a control group, the researchers found that the experimental class members showed gains on the draw-a-man test, while the control group did not. The experimental curriculum appeared to be effective in helping to develop a more positive self concept in children.

Abercrombie and Tyson (1966), in working with the body image of children with cerebral palsy as tested by the draw-a-man test . . . "concluded that performance on the Goodenough Draw-A-Man Test does not give evidence of body image disorder but of difficulty of drawing generally."

Judging by the studies considered, there is no question that there is a persistent relationship between the self and academic achievement. However, a great deal of caution is needed before one assumes that either the self concept determines scholastic performance or that scholastic performance shapes the self concept. It may be that the relationship between the two is caused by some factor yet to be de-
terminated. The best evidence now available suggests that it is a two-way process, that there is a continuous interaction between the self and academic achievement, and that each directly influences the other.

Research conducted by Wattenberg and Clifford (1962) indicates "that measures of self concept taken in kindergarten prove significantly related to mental test scores." This indicates that steps to improve a child's self concept before kindergarten will prepare him for a better start in school. It appears not to improve his mental ability or intelligence quotient but does free him to learn more readily.
CHAPTER III

METHODOLOGY

This chapter consists of the methodology of this study with the emphasis placed on the method of conducting the study, selection of a sample, single group technique, and the collection and analysis of the data.

SELECTION OF A METHOD

The purpose of this research was to develop and test affectual body image learning for Head Start children. The experimental method was used with special emphasis on the single group technique.

SELECTION OF A SAMPLE

A pilot study was conducted to insure that the behavioral objectives and techniques devised were appropriate for Head Start children. Ninety-two children, age three, four, and five, attending Head Start Centers located in Waubay, Sisseton and Summit, South Dakota took part in the pilot study. Each session was recorded and critiqued.

The initial centers were selected because they had an Indian student enrollment of over 10 per cent, as defined by the Bureau of Indian Affairs. Schools with an Indian enrollment experience a high proportion of "drop-outs." One
of the concerns of this research was to reach Indian students at an early age in an effort to help self image growth and possibly promote better readiness for school. The causes of failure and effects of the failing experience are complex, but a continuous and central factor in both cause and effect is the way in which a student views himself and his abilities.

The Waubay Head Start Center was selected as a representative group of the children in the trial centers. Eleven children attending the center during the three weeks the experimental treatment was administered were the subjects for this research. No child was required to participate. The children were permitted to join in the activity when they wished and leave the group when they no longer wanted to participate. During the six mornings spent in the center all of the eleven subjects did choose to take part in each experience once.

SINGLE GROUP TECHNIQUE

A pre and post draw-a-man test was used to evaluate change in self concept of body image as a result of the experimental treatment.

Each child drew a picture of himself. This was done individually to avoid imposing one child's self image on others. The only directions were, "Draw a picture of yourself."

The pilot study and experimental treatment follow in graphic form on pages 18-22.
### UNDERSTANDING AND ACCEPTING SELF

#### Experience one — Pilot Study

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<th>PURPOSE</th>
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</thead>
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<tr>
<td>Each child will be able to make an introduction of one of his classmates or himself during the exercise.</td>
<td>A finger puppet was used to set up the model between researcher and child. Puppet introduced self to child and child introduced self or one another to the puppet.</td>
<td>Establish &quot;Who I am?&quot; The name that is yours and your identification. To enable children to conceptualize why our face is ME.</td>
</tr>
<tr>
<td>Each child will be able to examine his own face and see the features that make his face.</td>
<td>Each child was given a small hand mirror. A puppet without facial features was presented and each child studied his own reflection to see what he had that the puppet needed. As features were pointed out the puppet was completed with felt features.</td>
<td>To make certain that all the children can find themselves on the picture. To check if they recognize themselves, and in what manner.</td>
</tr>
<tr>
<td>Each child will be able to identify himself in a picture taken of the group at the close of this exercise.</td>
<td>A polaroid camera was used to take a picture of the group.</td>
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Experience two --

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<th>PURPOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each child will be asked to draw a picture of him or herself.</td>
<td>Children were given this task on an individual basis. They used unlined 8½x11 white paper and &quot;fat&quot; wooden pencils. The only directions given were &quot;Draw a picture of yourself.&quot;</td>
<td>Establish what each child conceives his body image to be.</td>
</tr>
<tr>
<td>Each child will be able to identify individual body parts.</td>
<td>This activity was conducted with small groups of 4-5 children. They were all able to see their entire image in a full-length mirror. A song devised by this researcher was used to call attention to the body parts and motions with or toward that body part.</td>
<td>To enable the children to learn what each body part is named and where it is located on the body. To begin to conceptualize his own body accurately.</td>
</tr>
<tr>
<td>Each child will be able to positively identify his mirrored image as ME.</td>
<td>Each child was given a cardboard medallion on a yarn-tie to place around his neck with ME written on it.</td>
<td>To positively identify his mirrored image as me. The medallions were worn the remainder of the day with much opportunity to have the child point to himself and say, &quot;I'm ME.&quot; &quot;Can you see ME.&quot;</td>
</tr>
</tbody>
</table>
UNDERSTANDING AND ACCEPTING SELF

SONG
(Sung in a chanting manner).

Researcher       All

This is my HEAD  Head  Head  Head
This is my FACE  Face  Face  Face
This is my NECK  Neck  Neck  Neck

These are my ARMS  Arms  Arms  Arms
These are my HANDS  Hands  Hands  Hands
These are my FINGERS  Fingers  Fingers  Fingers

These are my LEGS  Legs  Legs  Legs
These are my FEET  Feet  Feet  Feet
These are my TOES  Toes  Toes  Toes

CHORUS:
I am ME!
Can you see?
I am ME!
I am ME!


## UNDERSTANDING AND ACCEPTING SELF

### Experience three — —

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
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<th>PURPOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each child will help draw an actual size model of his body.</td>
<td>Large pieces of wrapping paper were placed on the floor and the researcher traced around the body silhouette. Each child added features to his own image; clothing, facial expression, et cetera, as he wished.</td>
<td>This life size model gave another picture of self to conceptualize from.</td>
</tr>
<tr>
<td>Each child will be able to hear and feel a heart beat.</td>
<td>This activity was done in small groups. We did several exercises to cause the heart to beat harder. Each child felt his own heart. The children listened to one another's heart. Brief discussion on what work the heart is doing? Why does it work harder sometimes?</td>
<td>To begin to realize there is more to our body than just what we see. Many things are going on inside.</td>
</tr>
<tr>
<td>Each child will be able to identify blood veins in his body.</td>
<td>Each child examined his body to find veins that carried the blood his heart was pumping. Why does our blood have to go to all parts of the body?</td>
<td>To begin to see our body at work, and appreciate the miracle it is.</td>
</tr>
</tbody>
</table>
## Experience four

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<th>OBJECTIVES</th>
<th>TECHNIQUES</th>
<th>PURPOSE</th>
</tr>
</thead>
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<tr>
<td>Each child will be able to locate his heart.</td>
<td>The children used a heart-shaped cookie cutter to trace a heart shape on paper. They cut them out. Located their heart and with assistance pinned the heart-shape over their heart.</td>
<td>To accurately conceive the size and shape of their heart and its location in their body.</td>
</tr>
<tr>
<td>Each child will be able to draw a picture of himself.</td>
<td>Individually this researcher had the children draw another self picture on 8 1/2 x 11 unlined white paper. After completing the drawings they were asked to tell about their pictures.</td>
<td>To evaluate the learning that took place during the experimental treatment. To yield a post test to compare with the pretest.</td>
</tr>
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</table>
The pilot study pointed out that pre-school children learn best with concrete materials. Abstract concepts were kept at a minimum. Affectual learning was the main concern, but cognitive skills were also used in the experimental treatment.

COLLECTION AND ANALYSIS OF DATA

The pre draw-a-man test was administered on an individual basis by this writer. Each child was given an un-lined sheet of white paper and a pencil and asked to, "Draw a picture of yourself." The post test was administered in the same manner. Three-weeks lapsed from pre to post test, in which the experimental treatment, Experiences Two, Three, and Four, was accomplished. The tests were labeled as male or female subjects and the age in years and months was noted.

The tests were evaluated by a panel of three judges. The judges worked independently using the Goodenough-Harris Drawing Test Manual and an author designed tabulation form. See APPENDIX A, Figure 12. The pre test (judge) evaluations were analyzed statistically for inter-reliability. The reliability coefficient ranged from .910-.955. The high correlation indicates that the judges were interpreting the tests in a manner consistent with the test manual.

The raw scores determined by the judges were averaged and rounded off to the nearest tenth. These scores were used to determine the difference between the pre and post
test scores for each subject. The mean for pre and post test scores was computed, and the mean difference was also determined.

The importance of these calculations was to determine if there had been any measurable change between pre and post test scores for this group of eleven subjects.

To determine if these scores were showing significant change in body image concept the "t" test of significance was used. This procedure was accomplished by the following formulas:

$$ S_d^2 = \frac{S_{d_2}}{N-1} $$

$$ t = \frac{\bar{D}}{S_d} = \frac{\bar{D}}{S_d^2/ (N-1)} $$

The number of degrees of freedom associated with this "t" is 10. For 10 degrees of freedom a "t" of 2.228 is required for significance at the 5 per cent level. (Ferguson, 1959).
CHAPTER IV

RESULTS

Developing an evaluation technique for affectual learning is a complex task. In the case of this study the problem was compounded by working with eleven pre school age children with undeveloped cognitive skills. An additional concern with this sample was the fact that one child does not speak. She is thought to be an expressive aphasic child. She understands reasonably well when spoken to and joins in with the group in activities. No sort of oral inquiry could be used in her case. The draw-a-man technique was selected as the most meaningful test of body image and one within the capabilities of the sample for this study.

Each child was asked to draw a picture of him or herself. This was done on an individual basis. Each child performed this task in a very short time, with no verbal remarks. The only directions given were, "Draw a picture of yourself." All the pictures seem to indicate some concept of the head, at least in shape. To avoid making false deductions in comparing pre and post test pictures, each subjects pre and post drawings were compared only to each other. This was done in order to avoid the impact of artistic talent possessed by some. The post test was handled in much the same manner.

No erasers were available to the children since this
seems to confuse rather than help a young child. In some cases they indicated they "goofed a little" but that was "okay."

The following findings resulted from this investigation. The (raw score) mean change from pre to post test was 5.4. Table I contains the subjects pre and post test scores and the mean for each. The Indian students in the sample, as defined by the Bureau of Indian Affairs, Subjects 3, 10, and 11, showed a (raw score) mean change of 5.73. The standard scores were calculated from the Goodenough-Harris Drawing Test Manual conversion tables. These scores have built-in correction factors for sex and age. Figure 13 is a graphic plotting of the pre and post test standard scores and indicates the positive change for each subject.

The standard score expresses each child's relative standing on the test in relation to his own age and sex group, in terms of a mean of 100 and a standard deviation of 15. Thus, a standard score of 115 tells us that a child is one standard deviation above the average of his age and sex group.

In analyzing whether the experimental treatment used between the pre and post test experience did affect change in self concept of body image as measured by a draw-a-man technique, it was found that there was significant difference between the mean scores as measured by the "t" measure of sig-
<table>
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<th>Subject</th>
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<th>POST TEST</th>
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<tr>
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<td>70</td>
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</tr>
<tr>
<td>Subject 11</td>
<td>1.7</td>
<td>57</td>
</tr>
</tbody>
</table>

**MEAN**

|          | 6.9       | 80        | 12.3      | 101       |

Subjects 3, 10, 11 - Indian Bureau of Indian Affairs.

Subject 11 - Expressive aphasic.
FIGURE 13
PRE AND POST TEST STANDARD SCORES
nificance. The "t" critical values scale (Ferguson, 1959, p. 308) indicates a "t" score of 6.03 with 10 degrees of freedom at a .001 level of significance. A .001 level of significance indicates that change in body image concept could not be attributed to pure chance in 999 cases out of 1000, when this experimental treatment is executed; or in one case in 1000 the change in body image concept could be attributed to pure chance or the caprice of sampling.

Thus the hypothesis was accepted: When children are given opportunity to explore their individuality at an early age, significant steps can be taken toward understanding and accepting of self as related to body image growth when measured by the children's response to a draw-a-man test.
CHAPTER V

CONCLUSIONS

Chapter five is divided into two parts; the conclusions of this investigation, and a discussion section relating the research to present concerns in self image growth. Some indications for further research in this field are also included.

CONCLUSIONS

The draw-a-man form of evaluation of body image growth was the most appropriate technique for pre-school children.

Data were evaluated by a panel of judges using a standardized technique, developed by Goodenough and Harris to evaluate draw-a-man tests.

In using the Goodenough-Harris Scale to evaluate the pictures it was noted by this writer that the Woman's Point Scale used to evaluate the girl's drawings was not as appropriate as the Man's Point Scale was to the boy's drawings. The Woman's Point Scale seems to indicate an adult female figure as the ideal, which is not applicable to the self image drawings of pre-school girls.

On the basis of the data presented in this investigation, the following conclusions appeared warranted:

(1) This technique for presenting affectual learning to Head Start children was successful.
(2) Head Start children can experience body image growth when given opportunity to explore their individuality.

(3) In comparing the responses of the Indian children, as defined by the Bureau of Indian Affairs, their change in body image awareness was greater than the mean change of the total group.

DISCUSSION

One concern noted by this researcher was the question of lasting effect of the experience of self image growth in a short time span. Another concern was the effect of this experience on school success in kindergarten. A follow-up study on this experimental group next year and possibly another later check would give some data to support or reject the findings of this study.

This research experience indicated that the Indian students showed greater growth in body image concept, as measured by a draw-a-man test, than the mean of the group. Is this an indication of a need they felt? Will these children's school experience reflect this experimental treatment? Are members of minority, ethnic and racial groups subject to more identification difficulties? Additional research into these areas might lead to answers for these and other questions.

This study involved children age 3-5. Many of the concepts are also applicable to older children. For example,
health classes might use human figures acquired by drawing around class members silhouettes for indicating skeletal structure, location of organs, blood vessels, muscles and other points of concern to the class. Mobiles of the body shape in life-size scale could be used in a similar manner.

Songs might be composed by the class to express the emotions they are feeling. Every creative teacher can bring "fun" learning into the classroom.

In summary this writer believes that every child has unique potential to add to a learning situation. If teachers can help this uniqueness in each child to grow and "BE," we will witness profound growth and humanness in our schools.
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APPENDIX A
Figure 1.
Pre-Test-Male
Age 5yrs.4mo.
Figure 1
Post-Test-Male
Age 5 yrs. 4 mo.
Figure 2
Pre-Test-Female
Age 5yrs. 6mo.
Figure 2*
Post-Test-Female
Age 5yrs. 6mo.
Figure 3
Pre-Test-Male
Age 4yrs11mo
Figure 3*

Post-Test-Male
Age: 4 yrs. 11 mo.
Figure 4
Pre-Test - Male
Age 4 yrs. 11 mo.
Figure 4*
Post-Test-Male
Age 4 yrs. 11 mo.
Figure 5
Pre-Test-Female
Age 4Yrs. 9 mo.
Figure 5*
Post Test-Female
Age 4 yrs. 9 mo
Figure 6
Pre-Test-Male
Age 5yrs.0mo.
Figure 6*
Post-Test-Male
Age 5yrs.0mo.
Figure 7

Pre-Test-Female
Age 3yrs.4 mo.
Figure 7*
Post-Test-Female
Age 3yrs.4mo.
Figure 8
Pre-Test - Male
Age 4 yrs. 5 mo.
Pre-test-Male
Age 3 yrs. 9 mo.
Figure 10
Pre-Test-Female
Age 4yrs.10mo.
Figure 10*

Post-Test-Female

Age 4 yrs. 10 mo.
Figure 11
Pre-Test-Female
Age 5 yrs. 4 mo.
Figure 11*
Post-Test-Female
Age 5yrs.4mo.
Figure 12

DRAW-A-MAN TABULATION SHEET


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