

PREADOLESCENT BOYS AND BODY IMAGE

by

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A THESIS

Approved:

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Dean of the Graduate School

PREADOLESCENT BOYS AND BODY IMAGE: A STUDY OF 125  
PREADOLESCENT BOY ACHIEVERS AND UNDERACHIEVERS  
AND HOW THEY DIFFER IN THEIR BODY IMAGES

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by  
Dorothy Smart Eddleman Wells  
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## A C K N O W L E D G M E N T

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## ABSTRACT

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### Purpose

It was the purpose of this study to determine the extent to which seventy-five preadolescent boy achievers differed in the degree to which they conceived their body images from fifty preadolescent boy underachievers. Specifically, this study sought to ascertain that 1) preadolescent boy achievers would project a more positive body image than would the preadolescent boy underachievers; and 2) preadolescent boy underachievers would perceive themselves as being more constricted in their communications with their environment than would the preadolescent boy achievers.

### Methods

The methods used to obtain data for this study were 1) examination of permanent record cards and I.Q. scores; 2) homeroom teachers' evaluations; 3) schedule of baseline characteristics of the preadolescent boys and their parents; and 4) responses of the preadolescent boys to ten questionnaire items and six transparencies.



## Summary of Findings

Educational Characteristics.--More than one-half--in some instances more than two-thirds--of the 125 boys were deemed by their teachers to have enriched or average ability, were appropriate in classroom attitude, moderate in classroom and sports participation, and were regular in attendance. As might be expected, more achievers than underachievers were estimated enriched or average in ability by teachers, while more underachievers than achievers were estimated by teachers to have low average or fair ability. Underachievers were more apt than achievers to be aggressive or withdrawn in classroom attitudes, and to participate little in class.

Perception of Body Image.--Almost all 125 boys--82 to 96 per cent--felt positive about their nose, eyes, hair, weight, and strength. This same percentage of boys expressed positive feelings about their performance in sports and in school. They also believed their classmates, teachers, and parents had positive feelings about them. A few more underachievers than achievers believed they were good in sports, not so good in school performance, and that their teachers did not feel too positive about them.

Manifested Body Perceptions.--One-half of the 125 boys were able to pursue their own interests rather than permit their friends to deter them. In one situation, there were significantly more achievers than underachievers who expressed an ability to pursue their own interests. In the other situation there were more underachievers than achievers who would

not follow their own interests. Sixty to eighty per cent of the 125 boys were able to express their own feelings overtly--to hit out in one situation, and to stop and comfort in the other. In the latter situation significantly more achievers than underachievers expressed an ability to stop and comfort. More than one-half of the 125 boys responded appropriately to their environment. Eighty-three per cent expressed a desire to obey a school rule about bringing a water pistol to school. Significantly more achievers than underachievers responded appropriately to their environment. The responses to all six situations revealed more underachievers than achievers who were undecided in pursuit of their own interests, in the expression of their feelings, and in responding appropriately to their environment. In the latter situations, the undecided responses of the underachievers influenced significantly the difference.

Approved:

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Supervising Professor

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## CHAPTER I

### INTRODUCTION

Despite broad application by researchers in the fields of neurology, psychiatry, and psychology, conceptions of body image continue to be vaguely defined. Characteristically, there is an association of direct perception of the physical appearance of the body with those images, thoughts, attitudes, and affects regarding the body.<sup>1</sup>

Social scientists would agree that body image cannot be meaningfully considered as an isolated concept because it does not fully correspond to the body as a physical entity. Schilder expressed this concept explicitly when he pointed out,

Bodies are after all not isolated entities. The body and the body image are always the body and the body image of a personality which expresses itself in the body. The body image is never an isolated part of our existence but is a part of every experience. The human personality is a personality with a body which expresses itself in the body image and only on the basis of the understanding of the body image can we understand the personality fully.<sup>2</sup>

Presumably it is a child's early experience with his own body and the bodies of others which may become translated into

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<sup>1</sup>Arthur C. Traub and J. Orbach, "Psychophysical Studies of Body Image," Archives of General Psychiatry, XI (July, 1964), 53.

<sup>2</sup>Frank J. Curran and J. Frosch, "The Body Image in Adolescent Boys," The Journal of Genetic Psychology, LX (1942), 38, citing P. Schilder, "Image and Appearance of the Human Body," Psyche Monographs, IV (1935).



body image attitudes and these in turn into body reactivity gradients or landmarks.<sup>3</sup>

Through these early experiences, the child becomes the core of cognitive structure that defines and evaluates who he is, what he is, and what he can do. Through experiencing pleasure or pain, success or failure, pride or shame in connection with the body, and incorporating social values, the child's body image becomes invested with highly personal meanings, values, and feelings. Due to the differences in children and their environmental experiences, variations occur in their conceptions of self and in their standards for evaluating themselves.<sup>4</sup>

### Problem

Many social scientists advocate that a child's behavior can be predicted from a knowledge of his body image. These predictions include such diverse phenomena as level of achievement and aspiration, ability to tolerate stress, behavior in small groups, and the detection of certain social problems (e.g., school dropouts and juvenile delinquency).<sup>5</sup>

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<sup>3</sup>Seymour Fisher, "Extensions of Theory Concerning Body Image and Body Reactivity," Psychosomatic Medicine, XXI (1959), 142-143.

<sup>4</sup>Harold Proshansky and Bernard Seidenberg (ed.), Basic Studies in Social Psychology (New York: Holt, Rinehart, and Winston, 1965), p. 30.

<sup>5</sup>Seymour Fisher and Rhoda Lee Fisher, "A Developmental Analysis of Some Body Image and Body Reactivity Dimensions," Child Development, XXX (1959), 389.

Theorists maintain that the environment<sup>6</sup> of a child has the greatest effect upon his body image.<sup>7</sup> One of the most profound environmental influences toward molding a child's body image is the school. Findings reveal that the time spent in the classroom leads to growth in self as well as in academic goals.

However, the school cannot be held responsible for uniformly developing each child's body image. Everyone who has had some experience in teaching in the elementary school realizes that no two children are alike in personality; that some are extremely well adjusted, and others extremely mal-adjusted; that some tend to overachieve, and others underachieve; and that between these two extremes may be found all degrees of adjustment and achievement.

For this research, the following assumptions were made:

1) preadolescent boys view their physical body perceptibly, and these perceptions may be positive or negative; 2) the body perceptions of preadolescent boys may have some association with levels of academic achievement; and 3) these perceptions may be manifested through pursuit of interest, expression of feelings, and by responses to the environment.

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<sup>6</sup>In this study, the term environment has referred to the family, peer group, and other social agencies (e.g., school, churches, etc.).

<sup>7</sup>Mary Amatora, "Developmental Trends in Pre-Adolescence and in Early Adolescence in Self-Evaluation," The Journal of Genetic Psychology, XCI (1957), 89.

Hypotheses I and II were formulated from the above assumptions. Hypothesis I was described by the following three statements:

Working Hypothesis I: Preadolescent boy achievers will project a more positive body image while the preadolescent boy underachievers will project a less positive body image. The achievers will project a higher degree of self-esteem, self-acceptance, and self-confidence than will the underachievers.

Null Hypothesis I: There is no difference, beyond that attributable to chance, between the body images projected by the preadolescent boy achievers and underachievers.

Statistical Hypothesis I: A greater proportion of the preadolescent boy achievers will project a more positive body image than will be projected by the preadolescent boy underachievers.

If based on the analyzed data, the null hypothesis is affirmed, the results would then suggest that underachievers project the same degree of self-esteem, self-acceptance, and self-confidence as the achievers. It would further seem to indicate that there is no direct correlation between the preadolescent boy's performance in school and his body image.

In the event the null hypothesis is rejected, the indications would be that the body image of the preadolescent boy does affect his achievement in school. It would seem to substantiate the theory that a less positive body image will tend to produce feelings of inferiority to one's self, one's peers, and other environmental relationships. If one cannot feel confident about himself and his environment, he cannot be expected to perform to his greatest potential.



Hypothesis II was described by the following three statements:

Working Hypothesis II: Underachievers will find it more difficult to express their feelings, pursue their own interests, and to respond adequately to their own environment than will the achievers.

Null Hypothesis II: The underachievers will not perceive themselves as being more constricted in their communications with their world than will the achievers.

Statistical Hypothesis II: A greater proportion of the underachievers will exhibit more feelings of inadequacy in their communications with their environment than will be exhibited in the achievers.

If, in the event the null hypothesis is affirmed and the underachievers do not feel inadequate in their ability to communicate with their environment, the results would then suggest that underachievers feel as secure in their environmental relationships as do the achievers.

In the event the null hypothesis is rejected, the implications would be that there is an association between underachievement and feelings of inadequacy. It would further indicate that preadolescent boy underachievers appear to be more withdrawn in expressing their own feelings and pursuing their own interests. If a boy has inferior feelings about himself, he cannot be expected to perform to his best ability.

Basic questions to be answered during this study were:

1. To what extent does the literature and other significant research discuss the influence that the body image has upon the attitude and the achievement level of the preadolescent boy?
2. To what extent will five descriptive baseline characteristics differentiate the seventy-five preadolescent

boy achievers from the fifty preadolescent boy underachievers?

3. To what extent will the five baseline characteristics of the preadolescent boys' parents differentiate the seventy-five preadolescent boy achievers from the fifty preadolescent boy underachievers?
4. Will the five educational evaluations differentiate the seventy-five preadolescent boy achievers from the fifty preadolescent boy underachievers?
5. To what extent, if any, will the responses to the ten selected questionnaire items, each of which attempts to operationally define positive and less positive body image, differentiate seventy-five preadolescent boy achievers from fifty preadolescent boy under-achievers?
6. To what extent, if any, will the responses to the six transparencies significantly reveal that preadolescent boy underachievers are more constricted in their communications with their world than are the preadolescent boy achievers?

Unfortunately, most research on body image has not been conducted on children. After one fashion or another, educators everywhere are concerned with the evaluation of a child. This evaluation cannot be complete without the knowledge of the child's own body image. If the body image of the child is such that it does not seem indicative of a good positive feeling toward his body, perhaps something can be done before the child emerges into early adolescence.<sup>8</sup> Certainly, a child who does not feel self-confident cannot be expected to regard himself as able to assume the responsibilities that accompany an active, enterprising attitude. This less positive body image

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<sup>8</sup>Mary Amatora, "Developmental Trends in Pre-Adolescence and in Early Adolescence in Self-Evaluation," The Journal of Genetic Psychology, XCI (1957), 89.

will also tend to reduce the possibilities for achievement, which in turn lowers self-esteem and self-acceptance.<sup>9</sup>

The voluminous child research studies which have been done to date deal mainly with infancy and adolescence, and not specifically with the preadolescent. Most researchers have characterized the preadolescent years as the unknown years, the mysterious years. Although written in 1943, Redl's article describing the preadolescent still appears vivid and to the point. He says:

The reason why we know so little about this phase of development is simple but significant: it is a phase which is especially disappointing for the adult, and especially so for the adult who loves youth and is interested in it. These youngsters are hard to live with even where there is the most ideal child-parent relationship. They are not as much fun to love as when they were younger, for they don't seem to appreciate what they get at all. And they certainly aren't much to brag about, academically or otherwise. You can't play the "friendly helper" toward them either--they think you are plain dumb if you try it; nor can you play the role of the proud shaper of youthful wax--they stick to your fingers like putty and things become messier and messier the more you try to "shape" that age. Nor can you play the role of the proud and sacerdotal warden of the values of society to be pointed out to eager youth. They think you are plain funny in that role.<sup>10</sup>

Adults find it very difficult to know and work with the preadolescent group. This group appears to work actively to keep adults "in the dark." Much of this difficulty can be

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<sup>9</sup>Sidney Cleveland and Seymour Fisher, "Predictions of Small Group Behavior from a Body Image Schema," Human Relations, X (1957), 224.

<sup>10</sup>F. Redl, "Pre-Adolescents, 'What Makes Them Tick?'" Child Study, (1943), 44.



attributed to the ascendancy of the dominant peer group during this time. The preadolescent's peers know him well, but the parent, teacher, and researcher are on the outside looking in. He has been measured and weighed, tested and scored, praised and punished--but still remains a mystery.<sup>11</sup>

Various studies reveal that the preadolescent period is a definite time for detecting warning signs of dissatisfaction with school. Barrett, for example, found that under-achieving, a major problem in the schools today, is apparent by grade five.<sup>12</sup> Other studies reveal that it is during this preadolescent period that many boys begin to get into difficulty at school. They often fall behind in their work and resist school standards; they perceive school as threatening, or of little positive value. They often reply negatively when describing school experiences. They are concerned with the class' image of them, as well as the teachers' perceptions of their worth.<sup>13</sup> To what extent can this period of difficulty be attributed to the preadolescent boy's body image?

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<sup>11</sup>Ibid.

<sup>12</sup>C. Burleigh Wellington and Jean Wellington, The Under-achievers: Challenges and Guidelines (Chicago: Rand McNally and Company, 1967), p. 65, citing H. G. Barrett, "Underachievement, A Pressing Problem," Bulletin of the Ontario Secondary School Teacher's Federation, XXXVI (May 31, 1956), 111-112.

<sup>13</sup>William E. Martin and Celia B. Stendler, Child Development (New York: Harcourt, Brace and Company, 1953), p. 435.



Many parents, teachers, and educators today believe there is a definite need for understanding the preadolescent boy's body image. Research of this nature is necessary in order to evaluate the preadolescent's response to the many environmental difficulties which he may encounter.<sup>14</sup>

#### Purpose

The purpose of this study was to determine the extent to which seventy-five preadolescent boy achievers differed in the degree to which they conceived their body images from fifty preadolescent boy underachievers. Specifically, this study sought to ascertain that preadolescent boy achievers would have a more positive body image than would the preadolescent boy underachievers. The study sample is described by five baseline characteristics of the preadolescent boys, five baseline characteristics of the preadolescent boys' families, and five educational evaluations of the preadolescent boys. The study sample is described also by the preadolescent boys' responses to ten questionnaire items, each of which attempted to describe positive or less positive body images.

The underachievers are described as perceiving themselves as more constricted in their communications with their environment. Additionally, the study sample is described by the preadolescent boys' responses to six transparencies,

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<sup>14</sup>Mary Amatora, "Developmental Trends in Pre-Adolescence and in Early Adolescence in Self-Evaluation," Journal of Genetic Psychology, XCI (1957), 96.

accompanied by six descriptive situations, which attempted to reveal the inadequacy the underachievers feel in communicating with their environment. The ten previously described baseline characteristics and the five educational evaluations were also utilized.

Most social scientists would agree that the way in which a child views himself is a significant variable in his performance. It would be further agreed that one should be able to predict behavior more accurately from a deeper insight into the child's body image. It was proposed that this study would serve as a guideline for predicting and detecting future social problems which the preadolescent boy may encounter due to a less positive body image.

It is further agreed through comparative studies that adults are not very good at ascertaining how preadolescent boys see themselves. Adults often become annoyed with boys of this age because they do not always carry through their commitments. It was proposed that the findings of this study would reveal comparable data to parents, teachers, and educators in anticipation that the data would provide a deeper insight and understanding within the world of the preadolescent boy.

#### Methods and Procedures

The study was composed of seventy-five preadolescent boy achievers and fifty preadolescent boy underachievers. The population from which the study sample was drawn included the

fifth and sixth grade boys from Madison Elementary School in Port Lavaca, Texas.<sup>15</sup> There were 140 boys who met the study criteria.<sup>16</sup> The age and I.Q. of the preadolescent boys served as the basic criteria for selecting the study sample. These boys ranged in age from ten to twelve years and had an I.Q. of 90 or above.<sup>17</sup>

The permanent record cards, I.Q. scores, and the homeroom teachers' evaluations served as the criteria for dichotomizing the selected sample into achievers and underachievers. If the boy's actual performance did not measure up to his potential, this criterion was sufficient evidence to term the boy an underachiever.

A Schedule and Questionnaire were employed in the collection of data for Hypothesis I. The Schedule consisted of five baseline characteristics which collected information about the preadolescent boys, five baseline characteristics which secured socio-economic information about the preadolescent boys' parents, and five educational evaluations which revealed information regarding the preadolescent boys' scholastic participations. The Questionnaire consisted of two categories. The first category consisted of five questions which obtained either positive or less positive responses in

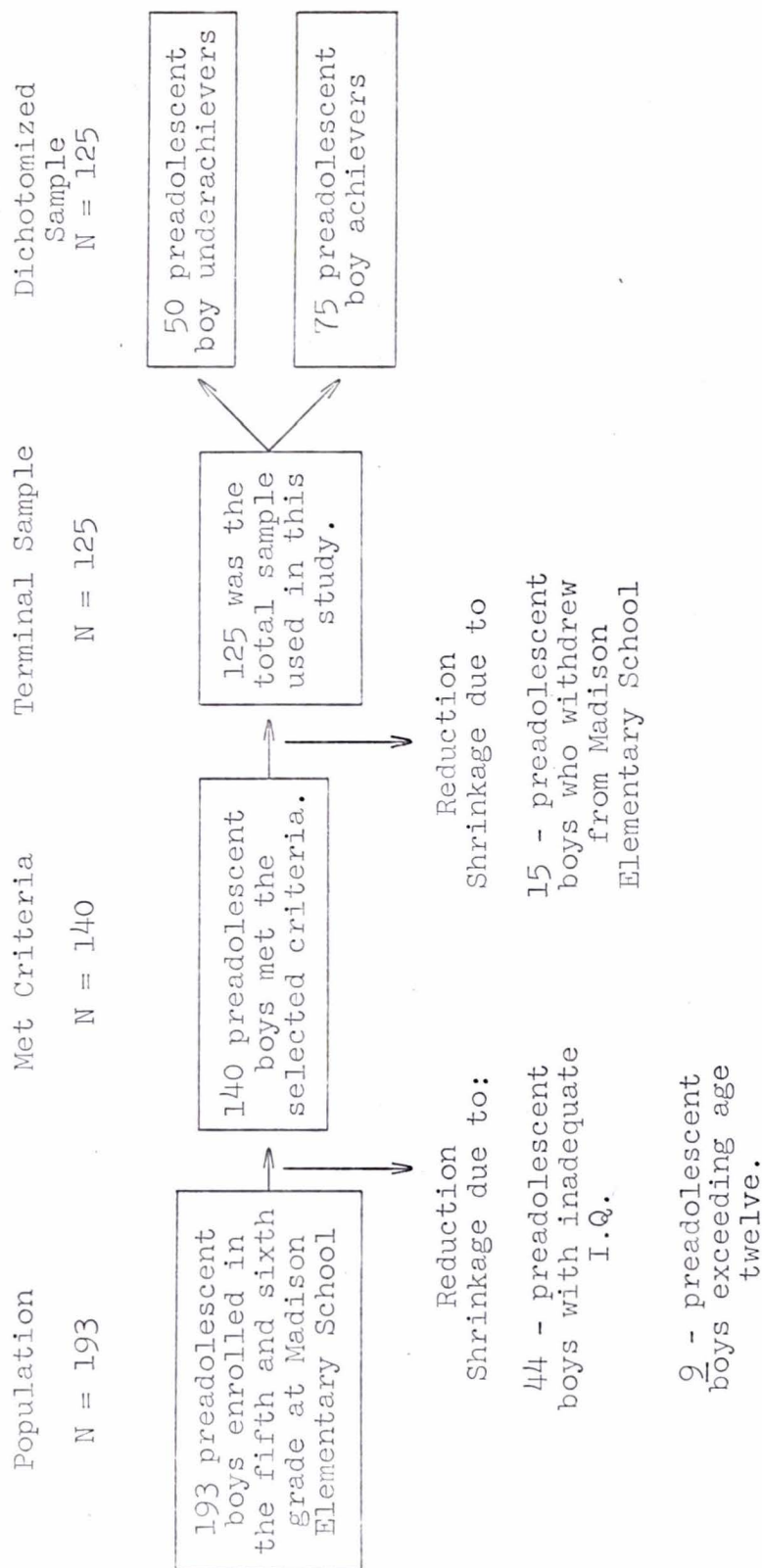
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<sup>15</sup>Excluding MBI and Special Education students.

<sup>16</sup>Flow Chart, p. 12.

<sup>17</sup>I.Q. scores were based on the California Mental Maturity Test administered by each homeroom teacher and the researcher.

# FLOW CHART DEMONSTRATING SAMPLE REDUCTION





regard to the preadolescent boy's perceptions of his physical characteristics.<sup>18</sup> The second category also consisted of five questions which secured either positive or less positive responses in regard to the preadolescent boys' general attitudes which are associated with the body as a social object.

The method which was used to obtain information for the Schedule and Questionnaire was as follows: Part I and Part II of the Schedule were completed by the researcher from information secured from the registration cards of the selected preadolescent boys at Madison Elementary School. Part III of the Schedule was completed by each preadolescent boy's homeroom teacher.<sup>19</sup> Both categories of the Questionnaire<sup>20</sup> were completed by the preadolescent boys under the guidance of the researcher. The researcher was quite aware of the limitations of the questionnaire method approach as pointed out in David Levy's study.<sup>21</sup> However, for the sake of uniformity and convenience, the researcher contended that the questionnaire approach was satisfactory for this study.

Six Transparencies, along with the above Schedule, were utilized in the collection of data for Hypothesis II.

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<sup>18</sup>APPENDIX B. Copy of Questionnaire, p. 81.

<sup>19</sup>The researcher believed that the homeroom teacher was in the best position to evaluate the child educationally.

<sup>20</sup>The Questionnaire used in this study was based on the questions constructed by Curran and Frosch in their study conducted on adolescent boys and their body images.

<sup>21</sup>David Levy, "A Method of Integrating Physical and Psychiatric Examination," American Journal of Psychiatry, IX (1929), 121.

These Transparencies attempted to reveal that underachievers would feel more inadequate in their communications with their environment than would the achievers.

The method which was used to obtain responses from the Transparencies was as follows: The Transparencies were shown to both the achievers and underachievers by the researcher. A situation was described with each transparency and both groups recorded their responses after each given situation.<sup>22</sup> The situations entailed making positive or less positive decisions which involved pursuit of interests, expression of feelings, and response to environments.

The unit of analysis for this study was body image as described by preadolescent boy achievers and underachievers. The dichotomized sample was cross-tabulated by ten demographic items and five educational evaluations. Frequency and recapitulation tables are utilized to show percentages, proportions, and the computed chi-square with accompanying probability values for the significance of the difference on each of the selected items.

The responses to the Questionnaire and Transparencies, which were used to evaluate the body images of the preadolescent boys, were analyzed by percentages and proportions. These data were subjected to the Chi-Square Test to determine whether or not the results obtained were significant beyond

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<sup>22</sup>APPENDIX C. Copy of Responses to Transparencies and Descriptive Situations, p. 85.

those which were attributable to chance.<sup>23</sup> Chi-Square is defined by the relation,  $\chi^2 = \sum \frac{(O-E)^2}{E}$ , where O is the measure of the observed frequency and E is the measure of the expected frequency. On questionnaire items that proved to be statistically significant at the .05 level or less, a contingency coefficient was applied to determine the degree of association.<sup>24</sup> A contingency coefficient is defined by the relation,  $C = \sqrt{\frac{\chi^2}{N - \chi^2}}$ , where N is the total number of preadolescent boys in the study sample. Recapitulation tables are used to reveal the results obtained from the data.

### Definitions of Major Terms

Body Image.--The term body image, as used in this study includes both the surface, depth, and postural picture of the body on the one hand, and on the other, the attitudes, emotions, and personality reactions of the individual in relation to his body.<sup>25</sup> In general, it is the composite picture which the individual has of his own body.

Preadolescent.--The term preadolescent, as used in this study, refers to the ages of ten through twelve--the years just prior to adolescence.

Underachiever.--An underachiever, for purposes of this study, is a student whose achievement has not measured up to his potential. The underachiever appears to possess ability to achieve considerably higher grades than his

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<sup>23</sup>Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences (New York: McGraw-Hill Book Company, Inc., 1956), p. 175.

<sup>24</sup>Ibid., p. 198.

<sup>25</sup>Alexander Lowen, The Betrayal of the Body (New York: The Macmillan Company, 1967), p. 79.



present record shows.<sup>26</sup> Speaking figuratively, "the underachiever is the person who sits on his potential, resisting various motivational procedures to get him off his potential, and possibly needing an adroitly directed kick in that same potential."<sup>27</sup>

Achiever.--An achiever, for purposes of this study, is a student whose actual performance measures up to his potential.

Positive.--For purposes of this study, the term positive reflects a high degree of self-esteem, self-acceptance, and self-confidence. It expresses enthusiasm, and an active-oriented view of life.

Less Positive.--For purposes of this study, the term less positive refers to a lower degree of self-confidence, self-esteem, self-acceptance, and enthusiasm than does the term positive.

Homeroom Teacher.--Each preadolescent boy in this study is assigned to a homeroom teacher. This teacher has access to the preadolescent boy's personal records, and receives most of the communication from the boy's parents. The homeroom teacher is also responsible for administering and evaluating achievement and personality inventory tests. In this homeroom, the preadolescent boy is grouped with others who have similar general ability.

Potential.--The term potential refers to those goals which the preadolescent boy is capable of achieving as measured by his I.Q., previous grade averages, and teacher evaluations.

Achievement.--The term achievement, for purposes of this study, refers to the preadolescent boy's performance in class as measured by his grade averages and teacher evaluations.

Transparency.--The term transparency, for purposes of this study, refers to a piece of transparent material (8 x 11) having a picture that is visible when light shines through it, especially when it is placed on an overhead projector.

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<sup>26</sup>C. Burleigh Wellington and Jean Wellington, The Underachievers: Challenges and Guidelines (Chicago: Rand McNally and Company, 1967), p. 1.

<sup>27</sup>D. W. Russell, "A Plea to Beam in the Underachievers," High School Journal, XLII (1958), 66.

### Preview of the Organizational Plan

Chapter I includes an introduction to the study and how research in this area might reveal more about the preadolescent boy and his body image. For this research the following assumptions were made: 1) preadolescent boys view their physical body perceptibly, and these perceptions may be positive or negative; 2) the body perception of preadolescent boys may have some association with levels of academic achievement; and 3) these perceptions may be manifested through pursuit of interest, expression of feelings, and by responses to the environment.

The purpose of this study was to determine the extent to which the preadolescent boy achievers differed in the degree to which they conceived their body images from the preadolescent boy underachievers, as measured by the preadolescent boys' responses to the Six Transparencies and a Questionnaire. It was further proposed that this study would serve as a guideline for predicting and detecting future social problems.

Chapter II includes a discussion of the results of other research concerning body image as it is related to the child in elementary school. A descriptive analysis of the baseline characteristics is also included in Chapter II. In Chapter III the educational evaluations of the preadolescent boys are analyzed. Additionally, an analysis of the preadolescent boys' responses to the Six Transparencies and the

Questionnaire is made by comparing the differences between the achievers and the underachievers. An interpretation of the results is included in Chapter IV, as well as a summary of the findings and the implications of these findings for additional research in body image.

## CHAPTER II

### BACKGROUND OF THE STUDY

#### Review of the Literature

The concept of body image has had wide currency in various contexts. In the literature concerned with body image, one finds such diverse interests as the relationship of body image to severe personality disorganization, organic brain pathology, mode of child rearing, psychomatic ailments, existence of an artificial opening in the body, differences in body image boundaries, events in psychotherapy, and sexual identification. Most of these studies have been based on impressionistic, clinical data, and the generality of results from them has consequently been limited.

There is a dearth of information specifically regarding preadolescent boys and their body images. However, the obscure information that is available has focused on the degree to which the preadolescent boy expresses either a positive or less positive feeling toward his body image.

Walsh used the Driscoll Play Kit to conduct a significant study involving preadolescent boy achievers and under-achievers and their body images.<sup>1</sup> Each boy's self-image was inferred from the behavior and attitudes he attributed to the

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<sup>1</sup>The Driscoll Play Kit contains doll-play equipment.



boy doll. The findings revealed that the underachievers projected more inadequate body images than did the achievers.<sup>2</sup>

Perkins pointed out in a significant study of fourth-grade and sixth-grade children that boys generally feel confident of scholastic ability, are happy or at least optimistic, and are concerned about their physical appearance--generally wishing to be taller.<sup>3</sup> Also, Jersild's study of fifth-grade and sixth-grade children revealed that boys commented more frequently on a combination of athletic ability and physical characteristics than any other category--indicating bodily preoccupation.<sup>4</sup>

There have been various other studies involving pre-adolescent boys and their body images which have employed figure-drawing indices, which constitute a kind of body image measure. The basic hypothesis underlying human figure drawing interpretation is the "body image" hypothesis, which states that when a human figure is drawn by a person, it is actually

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<sup>2</sup>Ruth C. Wylie, The Self Concept (Lincoln: University of Nebraska Press, 1961), p. 257, citing Anna Walsh, "Self Concepts of Bright Boys with Learning Difficulties," New York Bureau of Public Teachers College, XIII (1956).

<sup>3</sup>H. Perkins, "Factors Influencing Change in Children's Self-Concepts," Child Development, XXIX (1958), 221-230.

<sup>4</sup>Ruth C. Wylie, The Self Concept (Lincoln: University of Nebraska Press, 1961), pp. 62-63, citing A. Jersild, In Search of Self (New York: Teachers College, Columbia University, 1952).

a semblance of that person as he views himself.<sup>5</sup> Machover stated it thus:

The human figure drawn by an individual who is directed to "draw a person" relates intimately to the impulses, anxieties, conflicts, and compensations characteristic of that individual. In some sense, the figure drawn is the person, and the paper corresponds to the environment.<sup>6</sup>

Bradfield found that withdrawn, acting-out, and under-achieving children tended to place drawings on the left side of the page.<sup>7</sup> In another study, Koppitz revealed that normal children drew figures which were properly balanced while children with behavior problems drew figures which were falling down or floating. This study further revealed that stance (whether the figure is balanced or not) was significantly related to school achievement.<sup>8</sup>

Witkin and his associates conducted a highly significant study involving field articulation and body image. It was hypothesized that the nature of the body concept as expressed in human figure drawings is related to mode of field

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<sup>5</sup>Clifford H. Swensen, "Empirical Evaluations of Human Figure Drawings: 1957-1966," Psychological Bulletin, LXX (1968), 31.

<sup>6</sup>K. Machover, Personality Projection in the Drawing of the Human Figure (Springfield, Illinois: Charles C. Thomas, 1949), p. 35.

<sup>7</sup>Clifford H. Swensen, "Empirical Evaluations of Human Figure Drawings: 1957-1966," Psychological Bulletin, LXX (1968), 31, citing R. H. Bradfield, "The Predictive Validity of Children's Drawings," California Journal of Educational Research, XV (1964), 166-174.

<sup>8</sup>E. Koppitz, "Emotional Indicators on Human Figure Drawings of Children: A Validation Study," Journal of Clinical Psychology, XXII (1966), 313-315.

approach. Machover's scale, consisting of a variety of specific items based on graphic features, was utilized for this particular study. The short form of this scale was applied to the figure drawings of twenty-two ten-year-old boys. A correlation of .41 ( $P < .05$ ) between figure-drawing scale scores and perceptual index scores was found. This result strongly supports the hypothesis that the extent of articulation of body concept, as reflected in figure drawings, is related to style of field approach.<sup>9</sup>

Each of the above studies tends to imply that a pre-adolescent boy's body image and his performance are inseparable. It is further evident that the preadolescent boy does consciously evaluate himself, and that his evaluation is influential in his behavior.

This study does not encompass all variations of body image, nor does it attempt to test any other theory other than that which has been presented--that the degree in which a preadolescent boy views his body image influences his academic performance. If the preadolescent boy has a positive image of himself, his image will be manifested through a better performance in school.

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<sup>9</sup>H. A. Witkin, et al., Psychological Differentiation (New York: John Wiley and Sons, Inc., 1962), p. 117.



### Setting of the Study

Madison Elementary School is one of five elementary schools in Port Lavaca, Texas. It is the only elementary school in Calhoun County equipped with both a central library and gymnasium.

Madison Elementary School contains only the fifth and sixth grades, and has a faculty of twenty-one teachers. It has an enrollment of 476 students which consists of approximately 47.5 per cent Anglo, 47.5 per cent Mexican, and 5 per cent Negro.<sup>10</sup>

Both grades are divided into four levels of instruction:<sup>11</sup> 1) Enriched, 2) Average, 3) Low Average, and 4) Fair. The criteria for placing students in the different levels are:

1. Achievement level (grades from report cards and records).
2. I.Q. scores.
3. Iowa Test scores and reading tests.
4. Teacher opinion from the previous year.
5. Physical record.
6. Other data.

A student may be changed from one level of instruction to another, if the homeroom teacher so recommends. The homeroom

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<sup>10</sup>These data were obtained from the principal's office at Madison Elementary School.

<sup>11</sup>These levels exclude the M.B.I. and Special Education classes.

teacher must then discuss this change with the teachers within the higher or lower level in order to advise the student of what is expected of him.

### Baseline Characteristics of the Preadolescent

#### Boys and Their Parents

In order to obtain a description of the preadolescent boys who were the subjects for this study, the achievers were compared and contrasted with the underachievers through the analysis of ten baseline characteristics. The data were then subjected to the Chi Square Test to determine if any of the descriptive characteristics significantly differentiate the achievers from the underachievers.

The data in TABLE I depict the 125 preadolescent boys dichotomized by achievers and underachievers in the fifth and sixth grades, and cross-tabulated by ten descriptive characteristics of the boys and their parents. None of the ten descriptive items significantly differentiate the seventy-five achievers from the fifty underachievers. Two of the ten characteristics--physique of boy, and marital status of parents--tend toward differentiation ( $.20 > P > .10$ ), but not at the .05 level of significance. On each characteristic the difference could have happened frequently by chance. This finding strongly suggests that the dichotomized sample--achievers and underachievers--were drawn from the same universe or population. The null hypothesis of no difference is sustained for each of these ten categories.

TABLE I

125 PREADOLESCENT BOYS DICHOTOMIZED BY ACADEMIC ACHIEVEMENT IN THE FIFTH AND SIXTH GRADES AND BY TEN BASELINE CHARACTERISTICS OF THE PREADOLESCENT BOYS AND PARENTS: CHI SQUARE AND PROBABILITY

Baseline Characteristics of Boy and Parents	Achievers		Under- achievers		Total		Chi Square	d.f.	Probability
	N=75	Pro- portion	N=50	Pro- portion	N=125	Per Cent			
Age of Boy									
Ten	29	.387	17	.340	46	36.8			
Eleven	35	.467	21	.420	56	44.8			
Twelve	11	.146	12	.240	23	18.4	1.74	2	.50 > P > .30
I.Q. of Boy									
90-109	28	.374	22	.440	50	40.0			
110-129	39	.520	23	.460	62	49.6			
130 and above	8	.107	5	.100	13	10.4	2.14	2	.50 > P > .30
Ethnic Group of Boy									
Anglo-American	47	.626	34	.680	81	64.8			
Mexican-American	24	.320	15	.300	39	31.2			
Afro-American	4	.053	1	.020	5	4.0	1.00	2	.70 > P > .50
Physique of Boy									
Soft, Round	5	.067	8	.160	13	10.4			
Strong, Muscular	39	.520	18	.360	57	45.6			
Slender, Fragile	31	.414	24	.480	55	44.0	4.50	2	.20 > P > .10

# Sibling Position of Boy

Only Child	5	.067	1	.020	6	4.8	
Youngest Child	13	.173	8	.160	21	16.8	
Middle Child	33	.440	26	.520	59	47.2	
Oldest Child	24	.320	15	.300	39	31.2	.70 > P > .50

1.84 3

## Marital Status of Parents

Married	65	.868	48	.960	113	90.5	
Separated <sup>a</sup>	[5		0		5		
Divorced <sup>a</sup>	3	.133	1	.040	4	9.6	
Widowed <sup>a</sup>	2		1		3		.20 > P > .10

2.28 1

## Socio-Economic Status of Parents

Upper-Middle	26	.347	18	.360	44	35.2	
Lower-Middle	21	.280	15	.300	36	28.8	
Upper-Lower	20	.267	9	.180	29	23.2	
Lower-Lower	8	.107	8	.160	16	12.8	.70 > P > .50

1.85 3

## Head of House

Father <sup>a</sup>	69	.920	47	.940	116	92.9	
Mother <sup>a</sup>	[4		1		5		
Other Relatives <sup>a</sup>	1	.080	0	.060	1	7.1	
Foster Parents <sup>a</sup>	1		2		3		.95 > P > .90

.005 1

## Occupation of Head of House

Unskilled	47	.626	29	.580	76	60.6	
Skilled	22	.294	19	.380	41	32.8	
Professional	6	.080	2	.040	8	6.4	.50 > P > .30

1.54 2



TABLE I (Continued)

Baseline Characteristics of Boy and Parents	Achievers		Under- achievers		Total		Chi Square	d.f.	Probability
	N=75	Pro- portion	N=50	Pro- portion	N=125	Per Cent			
Education of Head of House									
Grades 1-8	12	.160	12	.240	24	19.2			
Some High School	7	.093	6	.120	13	10.4			
High School	25	.334	23	.460	48	38.4			
Some College	15	.200	3	.060	18	14.4			
College	16	.214	6	.120	22	17.6	3.23	4	.70 > P > .50

<sup>a</sup>The items were combined in completing the Chi Square Test for significance of the difference.

Proportionately, there were twice as many under-achievers (.160) than achievers (.067) whose physique was described as "soft, round," and approximately 1.7 times as many achievers (.520) as there were underachievers (.360) whose physique was described as "strong, muscular." Yet, proportionately, there were as many achievers (.414) as under-achievers (.480) whose body physique was described as "slender, fragile." Ninety per cent of the parents of these 125 boys were married and living together in the home. Three times as many parents of achievers (.133) as underachievers (.040) were separated, divorced or widowed. The differences in proportions for these two descriptive characteristics accounted for the trend toward significant differentiation. Based upon the computed chi square and accompanying probability value, however, it cannot be concluded that either of these two descriptive characteristics significantly differentiates the achievers from the underachievers.

An analysis and interpretation of the remaining eight descriptive items reveal that the two samples, proportionately, were similar in the distributions by each of these characteristics. In age, 80 per cent were ten and eleven years of age. Slightly more underachievers (.146) than achievers (.240) were twelve years of age. One-half (49.6%) of the 125 boys were tested as having I.Q. scores ranging from 110-129, while 10 per cent were rated with I.Q. scores of 130 and above. The ethnic composition of the two samples shows that they were fairly evenly distributed by

Anglo-American (65% of total sample), Mexican-American (31%) and by Afro-American (4%). Almost two-thirds (64%) of the 125 boys were either the youngest or middle child, and slightly less than one-third (31%) were the eldest child.

The socio-economic status of 80 parents (64%) of the 125 boys were either from the upper or lower middle class. In almost all of the homes of these boys (116) the father was the head of the household, and while seventy-six (61%) of these fathers were employed in unskilled occupations (.626 achievers, .580 underachievers), forty-nine (39%) were employed in skilled occupations or in the professions (.374 achievers, .420 underachievers).

Almost one-third (32%) of the parents (head of house) either had completed college, or had some college education. Slightly less than one-fifth (19.2%) had attended only grades one through eight, and less than one-third (30%) had attended only grades one through twelve. A greater proportion of the underachievers' than achievers' parents had attended only grades one through twelve. In contrast, a greater proportion of the achievers' parents had attended some college or had completed college than had the underachievers' parents. Proportionately, more than three-fourths (.820) of the underachievers' parents had attended only grades one through twelve, whereas three-fifths (.587) of the achievers' parents had attended only grades one through twelve. The findings also revealed that proportionately, slightly more than two-fifths (.414) of the achievers' parents had attended or completed

college while less than one-fifth (.180) of the underachievers' parents had attended or completed college.

In summary, the analyzed data presented in TABLE I show five variables which tended to differentiate the achievers from the underachievers: 1) There was a higher proportion of achievers with a strong, muscular physique than underachievers; 2) Proportionately, more underachievers had a soft, round physique than did the achievers; 3) A greater number of the boys having college-trained parents tended to be achievers; 4) Proportionately, the boys whose parents attended only grades one through twelve tended to be underachievers; 5) Three times as many parents of achievers than underachievers either were separated, divorced, or widowed.

An examination of the educational evaluations of the preadolescent boys, as obtained by a schedule, is made in Chapter III. Additionally, the responses of the preadolescent boys to ten questionnaire items designed to test Hypothesis I and the responses of the preadolescent boys to six transparencies designed to test Hypothesis II are also analyzed and discussed.



## CHAPTER III

### ANALYSIS OF THE DATA

Five educational evaluation characteristics were included in the schedule and are discussed first in this chapter. The educational characteristics of each preadolescent boy were obtained from the evaluation of each boy's homeroom teacher. These evaluations are cross-tabulated according to the two samples--achievers and underachievers--of boys in the fifth and sixth grades. The Chi Square Test for the significance of the difference was applied to each of the five educational characteristics.

Responses from the preadolescent boys to the ten questionnaire items designed to test Hypothesis I also are discussed. These data obtained from the preadolescent boys' responses are cross-tabulated by the seventy-five achievers and the fifty underachievers. The data were analyzed by application of the Chi Square Test for significance of the difference to each item.

The remaining data presented in this chapter consist of the preadolescent boys' responses to the Six Transparencies (accompanied by six descriptive situations). These Six Transparencies were designed to test Hypothesis II. The Chi Square Test for the significance of the difference was applied to each descriptive situation.

Two of the five educational evaluations--ability and classroom participation--significantly differentiated the

achievers from the underachievers. The direction of the difference on two additional educational items--classroom attitude, and attendance--was toward differentiation, but not at the .05 level of significance. None of the ten questionnaire items regarding positive or less positive body image of the preadolescent boy differentiated the achievers from the underachievers at the .05 level of significance. Of these ten items there were two--how the boy rated himself in sports and how the boy believed his teachers felt about him--in which the direction of the difference was toward differentiation. Four of the six responses to the transparencies and descriptive situations did differentiate significantly the two samples. The hypothesis of no difference (the null) is rejected on the six differentiating items, and sustained on the remaining fifteen items.

Study Sample Described by  
Educational Evaluations

The data in TABLE II show the achievers and under-achievers distributed on five educational evaluations. The first item--ability grouping--represents four levels of instruction at Madison Elementary which are: 1) enriched, 2) average, 3) low-average, and 4) fair. Students are placed in one of these four instructional levels according to the criteria presented in Chapter II. The achievement level of the student--the level the student is achieving as compared to his potential--is the prime factor used in determining

TABLE II

125 PREADOLESCENT BOYS CHARACTERIZED BY HOMEROOM TEACHERS' RESPONSES  
TO FIVE EDUCATIONAL EVALUATIONS, BY ACADEMIC ACHIEVEMENT IN THE  
FIFTH AND SIXTH GRADES: CHI SQUARE AND PROBABILITY

Educational Evaluations	Achievers		Under- achievers		Total		Chi Square	d.f.	Probability
	N=75	Pro- portion	N=50	Pro- portion	N=125	Per Cent			
Ability Grouping									
Enriched	24	.320	16	.320	40	32.0			
Average	37	.493	8	.160	45	36.0			
Low Average	4	.053	10	.200	14	11.2			
Fair	10	.133	16	.320	26	20.8	19.55	3	P<.001
Classroom Attitude									
Aggressive	12	.160	11	.220	23	18.4			
Appropriate	52	.693	25	.500	77	61.6			
Withdrawn	11	.146	14	.280	25	20.0	5.08	2	.10>P>.05
Classroom Participation									
Excessive	15	.200	10	.200	25	20.0			
Moderate	46	.613	21	.420	67	53.6			
Little	14	.187	19	.380	33	26.4	6.34	2	.05>P>.02
Sports Participation									
Excessive	20	.266	14	.280	34	27.2			
Moderate	43	.572	26	.520	69	55.2			
Little, if any	12	.160	10	.200	22	17.6	.48	2	.90>P>.80
Attendance Record									
Good	73	.973	45	.900	118	94.0			
Fair	[ 2	.027	5 ]	.100	7	6.0	1.82	1	.20>P>.10
Poor	[ 0	.000	0 ]	.000	0	0.0			



the level of group instruction in which the student is placed at Madison.

In the analysis of the "ability grouping" item, it is surprising to observe that the two samples were comparable in the enriched level of instruction. Based on the criteria used for placing students within the four instructional levels, it might be expected that a larger proportion of the enriched level would have more achievers than underachievers. Slightly less than one-third (.320) of the boys in both groups were in the enriched level of instruction. These data were discussed with each of the underachievers' homeroom teacher in the enriched level. It was learned that these boys were placed within this enriched level primarily because of their above-average I.Q., rather than their achievement level. This particular method of placement was used in an attempt to challenge these underachievers in their academic performance. However, as the data seem to indicate, these boys were continuing to underachieve within their ability group. Slightly less than one-half (.493) of the achievers were in the average level of instruction, while less than one-sixth (.160) of the underachievers were in this level. More of the boys in the low-average level of instruction were underachievers (.200) than were achievers (.053). Of the total group, this level of instruction comprised a smaller percentage (11.2%) of boys than did the other three levels of instruction. This finding no doubt was influenced by the withdrawal of fifteen preadolescent boys from Madison, and nine boys who exceeded



age twelve. In the fair level of instruction, there were three times as many underachievers as achievers.

"Classroom participation" may be defined as the manner in which the student participates within the classroom in both oral and written procedures. The "moderate" category comprised the largest percentage (53.6%) of the three categories. Three-fifths (.613) of the achievers exhibited "moderate" participation, whereas slightly more than two-fifths (.420) of the underachievers participated "moderately" within the classroom. Of the total sample, 26.4 per cent of the boys exhibited "little" participation within the classroom. Slightly less than two-fifths (.380) of the underachievers exhibited "little" participation as compared to slightly less than one-fifth (.187) of the achievers. These data indicate a tendency for the underachievers to be more inhibited in their classroom participation than are the achievers.

The data on "classroom attitude" disclosed that a larger proportion of underachievers tended to be more "aggressive" than did the achievers. Proportionately, slightly more than one-fifth (.220) of the underachievers were found to be "aggressive" in their classroom attitude, while only slightly less than one-seventh (.160) of the achievers had this type of attitude within the classroom. Of the 125 boys, 61.6 per cent had an "appropriate" classroom attitude. Slightly more than three-fifths (.693) of the achievers were considered to have an "appropriate" attitude within their classroom

environment as compared to only one-half (.500) of the under-achievers. Slightly less than one-third of the underachievers (.280) were considered to be "withdrawn" in their classroom attitude, whereas slightly less than one-seventh (.146) of the achievers were categorized in this manner. These data seem to indicate that underachievers have a tendency to exhibit signs of insecurity which may be manifested through their attitude in class.

Inspection of the evaluations--prepared by the physical education instructor and each boy's homeroom teacher--of the preadolescent boys' "sports participation" reveals nominal difference between the proportions of the two groups in each category. Twenty-seven per cent of the 125 boys (.280 under-achievers, .266 achievers) participated "excessively" in sports. In the "moderate" participation category, .572 of the achievers and .520 of the underachievers comprised this category. A small percentage (17.6%) of the boys comprised the "little, if any" participation category. This "sports participation" item was utilized in an effort to establish some correlation between the preadolescent boy's academic achievement and his athletic ability. Each boy was evaluated academically by his homeroom teacher and evaluated athletically by his physical education instructor.

Regarding the "attendance record" of the study sample, 94 per cent of the total group of boys had good attendance. A good attendance record could be expected, since the annual percentage of attendance at Madison Elementary

School averages approximately 96 per cent.<sup>1</sup> However, the achievers' attendance record was slightly better than the attendance record of the underachievers.

In review of the analyzed data in TABLE II, four variables were learned: 1) Proportionately, more achievers were in the average level of instruction than were the underachievers, whereas more underachievers were in the fair and low-average levels of instruction than were the achievers; 2) A higher proportion of underachievers tended to exhibit either an "aggressive" or a "withdrawn" attitude within the classroom than did the achievers, whereas the achievers tended to exhibit an "appropriate" attitude in class; 3) Proportionately, more achievers participated more "moderately" within the classroom than did the underachievers, whereas more underachievers exhibited "little" participation within the classroom than did the achievers; 4) The attendance record--though good for both samples--for the achievers was slightly better than the attendance record for the underachievers.

#### Responses to the Ten Questionnaire Items

TABLE III includes the responses of the preadolescent boys to ten questionnaire items. The first five items were used to obtain either positive or less positive responses in

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<sup>1</sup>This information was obtained from the Principal's Office at Madison Elementary School, Port Lavaca, Texas.



regard to the preadolescent boy's perception of his physical characteristics. The last five items were used to secure either positive or less positive responses in regard to the preadolescent boy's general attitudes which are associated with the body as a social object. The ten questions were centered around the physical characteristics and the general attitudes of the body as a social object of the preadolescent boy's body image.

The Questionnaire was designed to test Hypothesis I--preadolescent boy achievers will project a more positive body image while the preadolescent boy underachievers will project a less positive body image. Each of the ten questions had three uniform responses: 1) very good, 2) somewhat good, and 3) not good. The first response was considered to be positive, whereas the latter two responses were considered to be less positive.

The null hypothesis was sustained on all ten items in TABLE III because the items failed to significantly differentiate the achievers from the underachievers at less than the .05 level of significance. From an inspection of the analyzed data, it was disclosed that the majority of preadolescent boys in both groups felt "very good" about two of their physical characteristics--eyes and hair--and one social attitude--their parents' feelings about them. Additionally, the distribution of responses shows that the preadolescent boys felt "somewhat good" about their noses, strength,



TABLE III

125 PREADOLESCENT BOYS' RESPONSES TO TEN QUESTIONNAIRE ITEMS PROJECTING THE POSITIVE AND LESS POSITIVE PERCEPTIONS OF BODY IMAGE, BY ACADEMIC ACHIEVEMENT IN THE FIFTH AND SIXTH GRADES: CHI SQUARE AND PROBABILITY

Questionnaire Items	Achievers		Under- achievers		Total		Chi Square	d.f.	Probability
	N=75	Pro- portion	N=50	Pro- portion	N=125	Per Cent			
How do you feel about the shape of your nose?									
Very Good	29	.387	17	.340	46	36.8			
Somewhat Good	43	.573	31	.620	74	59.2			
Not Good	3	.040	2	.040	5	4.0	.294	2	.90 > P > .80
How do you feel about your eyes?									
Very Good	48	.640	36	.720	84	67.2			
Somewhat Good	21	.280	11	.220	32	25.6			
Not Good	6	.080	3	.060	9	7.2	.974	2	.70 > P > .50
How do you feel about your hair?									
Very Good	43	.573	25	.500	68	54.4			
Somewhat Good	25	.334	19	.380	44	35.2			
Not Good	7	.093	6	.120	13	10.4	.715	2	.70 > P > .50
How do you feel about your weight?									
Very Good	34	.453	20	.400	54	43.2			
Somewhat Good	27	.360	22	.440	49	39.2			
Not Good	14	.187	8	.160	22	17.6	.809	2	.70 > P > .50

How do you feel about your strength?									
Very Good	22	.294	19	.380	41	32.8			
Somewhat Good	43	.573	22	.440	65	52.0			
Not Good	10	.133	9	.180	19	15.2	2.15	2	.50 > P > .30
How do you rate in sports?									
Very Good	26	.347	28	.560	54	43.2			
Somewhat Good	42	.560	18	.360	60	48.0			
Not Good	7	.093	4	.080	11	8.8	5.72	2	.10 > P > .05
How do you feel about your performance in your school work?									
Very Good	18	.240	7	.140	25	20.0			
Somewhat Good	44	.587	31	.620	75	60.0			
Not Good	13	.173	12	.240	25	20.0	2.22	2	.50 > P > .30
How do your classmates feel about you?									
Very Good	28	.374	14	.280	42	33.6			
Somewhat Good	42	.560	33	.660	75	60.0			
Not Good	5	.066	3	.060	8	6.4	1.30	2	.70 > P > .50
How do your teachers feel about you?									
Very Good	19	.254	9	.180	28	22.4			
Somewhat Good	51	.680	32	.640	83	66.4			
Not Good	5	.066	9	.180	14	11.2	4.23	2	.20 > P > .10
How do your parents feel about you?									
Very Good	67	.894	41	.820	108	86.4			
Somewhat Good	[ 8	.106	8	.180	16	13.6	.75	1	.50 > P > .30
Not Good	0		1		1				

performance in sports, classmates' and teachers' acceptance of them, and their school performance.

In analyzing the question, "What do you think of your nose?", the majority of the boys in both groups responded less positively. Proportionately, .613 of the achievers felt "somewhat good" or "not good" about the shape of their noses, whereas .660 of the underachievers responded in the same manner. Slightly less than two-fifths (.387) of the achievers and slightly less than one-third (.340) of the underachievers felt "very good" about the shape of their noses. According to previous research, it might be expected that an underachiever would tend to be more preoccupied with the shape of his nose than the achiever would be.<sup>2</sup> However, this item failed to significantly differentiate the two groups at the .05 level of significance.

Of the total group, 67.2 per cent (84) of the preadolescent boys responded positively to the question, "How do you feel about your eyes?" It was surprising to observe that a larger proportion of underachievers (.720) expressed a more positive response to the question than did the proportion of achievers (.640). According to the hypotheses stated within this study, it would seem that a greater proportion of positive responses to the above question would have been given by the achievers rather than the underachievers.

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<sup>2</sup>Frank J. Curran and J. Frosch, "The Body Image in Adolescent Boys," The Journal of Genetic Psychology, LX (1942), 40.

Regarding the question, "How do you feel about your hair?", both groups were comparable in all three response categories. Of the total group, 54.4 per cent of the boys responded positively, whereas 45.6 per cent of the boys responded less positively.

Responses to the question, "How do you feel about your height?" revealed slightly less than one-half (.453) of the achievers responded positively as compared to only two-fifths (.400) of the underachievers. Three-fifths (.600) of the underachievers gave less positive responses as compared to only slightly more than one-half (.547) of the achievers. In tabulating the responses to the above question, it was observed that several of the underachievers had noted in the questionnaire margin a desire to be taller. These notations suggest that a preadolescent boy's height may be an important factor toward the development of a more positive body image.

Of the 125 boys, 67.2 per cent responded less positively to the question, "How do you feel about your strength?" This finding may indicate that both the achievers and the underachievers in this study sample are dissatisfied with their strength. Of the 32.8 per cent positive responses given, the proportion of underachievers (.380) was greater than the proportion of achievers (.294).

In comparing the two questions, "How do you rate in sports?" and "How do you feel about your performance in your school work?", it was observed that proportionately, more underachievers (.560) than achievers (.347) felt "very good"



about their sports rating. However, more achievers (.240) felt "very good" about their academic performance than did underachievers (.140). It was the general consensus of the boys' physical education instructor and the boys' homeroom teachers that the underachievers, who responded less positively to the question concerning their academic performance, were very active in sports. In regard to this information, the question may be asked, how may teachers and parents motivate underachievers to do well in academic performance as well as in sports?

In reference to the evaluation of the question, "How do your classmates feel about you?", the data suggest that the underachievers may tend to feel less secure about themselves than do the achievers. Slightly more than one-third (.374) of the achievers indicated that their classmates felt "very good" about them, while only slightly more than one-fourth (.280) of the underachievers indicated the same response. Proportionately, three-fourths (.720) of the underachievers responded less positively when questioned about their classmates' feelings about them as compared to two-thirds (.626) of the achievers.

The trend observed in the above question seems to continue in the analysis of the responses to the question, "How do your teachers feel about you?" This question tends to differentiate the two samples. One-fourth (.254) of the achievers stated that their teachers felt "very good" about them, while slightly less than one-fifth (.180) of the

underachievers stated this opinion. Four-fifths (.820) of the underachievers responded less positively to the above question as compared to three-fourths (.746) of the achievers.

Approximately nine-tenths (.894) of the achievers and four-fifths (.820) of the underachievers felt their parents had a "very good" feeling toward them. Only one-tenth (.106) of the achievers and one-fifth (.180) of the underachievers responded less positively to this question.

Analysis of the data in TABLE III reveals that a majority of the achievers were satisfied with their height, felt "very good" about their school performance, felt secure within their peer group, and felt well-liked by their parents and teachers. The data further reveals that the majority of underachievers expressed a more positive feeling about their eyes, felt less secure about their height, were more satisfied with their strength, and had a more positive feeling about sports than did the achievers. Both samples were comparable in that they expressed dissatisfaction with the shape of their noses, felt satisfied with their hair, and indicated that their parents felt "very good" about them.

#### Responses to the Six Transparencies

TABLE IV includes the responses of both groups of pre-adolescent boys to six transparencies, accompanied by six descriptive situations,<sup>3</sup> used to test Hypothesis II--

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<sup>3</sup>APPENDIX C. Copy of Descriptive Situations, pp. 83-84.

TABLE IV

125 PREADOLESCENT BOYS' RESPONSES TO SIX DESCRIPTIVE SITUATIONS PROJECTING THE POSITIVE AND LESS POSITIVE PERCEPTIONS OF BODY IMAGE, BY ACADEMIC ACHIEVEMENT IN THE FIFTH AND SIXTH GRADES:  
CHI SQUARE AND PROBABILITY

Situations <sup>a</sup> (Accompanying Transparencies)	Achievers		Under- achievers		Total		Chi Square	d.f.	Probability
	N=75	Pro- portion	N=50	Pro- portion	N=125	Per Cent			
First Situation									
Take Art Lessons	45	.600	19	.380	64	51.2			
Play on Basketball Team	21	.280	23	.460	44	35.2			
Undecided	9	.120	8	.160	17	13.6	7.90	2	.02 > P > .01
Second Situation									
Go Look for Arrow-heads	41	.546	21	.420	62	49.6			
Go With Friends	31	.414	25	.500	56	44.8			
Undecided	3	.040	4	.080	7	5.6	2.33	2	.50 > P > .30
Third Situation									
Hit Kenneth	48	.640	27	.540	75	60.0			
Get Up & Walk Out	17	.227	12	.240	29	23.2			
Undecided	10	.133	11	.220	21	16.8	1.86	2	.50 > P > .30
Fourth Situation									
Stop & Try to Help	64	.854	38	.760	102	81.6			
Walk Past Him	8	.106	2	.040	10	8.0			
Undecided	3	.040	10	.200	13	10.4	9.58	2	.01 > P > .001

Fifth Situation									
Obey School Rule	70	.934	34	.680	104	83.2			
Bring Another	4	.053	8	.160	12	9.6			
Water Pistol	1	.013	8	.160	9	7.2	13.86	2	P<.001
Undecided									
Sixth Situation									
Wait for Mona & Try									
to Help Her Get Her	47	.626	20	.400	67	53.6			
Things Together									
Make Mona Walk By	23	.307	21	.420	44	35.2			
Herself	5	.066	9	.180	14	11.2	7.93	2	.02>P>.01
Undecided									

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<sup>a</sup>APPENDIX C. Copy of Descriptive Situations, p. 83.



underachievers will find it more difficult to pursue their own interests, express their feelings, and respond adequately to their own environment than will the achievers. The researcher used two descriptive situations to represent each of the above three characteristics of the underachievers. Each transparency was projected and each accompanying situation was described to both samples. Each boy was then asked to select one of three responses in each given situation.<sup>4</sup> The first response for each descriptive situation is categorized as a positive response. Therefore, each boy in the dichotomized sample which selected the first response was categorized as being more capable of pursuing his own interests, expressing his feelings, and responding adequately to his environment. Those boys selecting the second and third responses were categorized as having more difficulty pursuing their own interests, expressing their feelings, and responding adequately to their environment. The null hypothesis can be rejected on four of the six situations in TABLE IV because the four situations significantly differentiate the achievers from the underachievers at less than .05 level. The underachievers tended to exhibit more feelings of inadequacy in their communications with their environment than did the achievers.

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<sup>4</sup>APPENDIX C. Copy of Responses to Transparencies and Descriptive Situations, p. 85.

Six situations were used to describe the three characteristics: 1) ability to pursue own interests, 2) ability to express feelings, and 3) ability to respond adequately to the environment. The First and Second Situations pertain to the first characteristic; the Third and Fourth Situations to the second characteristic; and the Fifth and Sixth Situations to the third characteristic. The data in this Table are interpreted first according to the above three characteristics by giving the average proportion<sup>5</sup> for the two accompanying situations describing each characteristic. Additionally, an individual analysis will be made of the six situations which were used to describe the accompanying transparencies.

Analysis of the first characteristic--ability to pursue own interests--shows that slightly less than three-fourths (.573) of the achievers responded positively, whereas only two-fifths (.400) of the underachievers responded in a positive manner. Three-fifths (.600) of the underachievers responded to the First and Second Situations in a less positive manner, while only slightly more than two-fifths (.427) of the achievers responded less positively. The data seem to indicate that the underachievers tend to have more difficulty in pursuing their own interests than do the achievers.

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<sup>5</sup>The positive responses (of the preadolescent boys) for the two situations describing each of the three characteristics were combined to find an average proportion for each characteristic. (The less positive responses were combined in the same manner.)

In the second characteristic--ability to express feelings--three-fourths (.747) of the achievers selected a positive response as compared to three-fifths (.650) of the underachievers. Two-fifths (.350) of the underachievers selected a less-positive response as compared to one-fourth (.253) of the achievers. These data seem to indicate that the underachievers tend to have greater difficulty in expressing their true feelings than do the achievers.

Inspection of the responses of the third characteristic--ability to respond adequately to the environment--reveals that slightly less than four-fifths (.780) of the achievers selected the first response as compared to slightly more than one-half of the underachievers. Proportionately, slightly less than one-half (.460) of the underachievers selected either the second or third response as compared to slightly more than one-fifth (.220) of the achievers. This analysis of data would seem to denote that the underachievers seem to have more difficulty responding adequately to their environment than do the achievers.

The null hypothesis is rejected in four of the six situations. In the first characteristic--ability to pursue own interests--there were more achievers (.600) than underachievers (.380) who responded that if they were Bobby they would take art lessons after school, which Bobby wanted to do rather than play basketball, even if Bobby's best friend did threaten to quit playing with him if he took art lessons. Conversely, there were more underachievers (.460) than



achievers (.280) who responded that if they were Bobby they would play basketball after school rather than take art lessons. In the Second Situation describing "ability to pursue own interests," the distributions between achievers and underachievers were fairly evenly matched. Almost one-half of the total number (.546 achievers and .420 underachievers) responded positively--if they were Johnny they would go look for arrowheads, which Johnny preferred to do, rather than go with friends to the creek. One-half of the total number of boys responded less positively (.414 achievers, .500 underachievers) that they would go with friends rather than look for arrowheads. The difference in the responses made by achievers and underachievers to this descriptive situation could happen too frequently by chance, and thus did not significantly differentiate the two samples.

In the second characteristic--ability to express feelings--the responses to the two situations describing this characteristic were similar to the two situations describing "ability to pursue own interests." The distribution of responses to one situation (Third) are fairly evenly matched between achievers and underachievers, and therefore does not significantly differentiate the two samples. The other situation (Fourth) differentiates the achievers from the underachievers, and reveals an interesting distribution of responses. Seventy-five (60%) of the 125 boys (.640 achievers, .540 underachievers) responded that if they were Sammy, they would hit Kenneth, who laughed and continued to pour water



in Sammy's lunch tray after the latter asked Kenneth to stop. The remaining fifty boys responded either that they would get up and walk out, or were undecided what they would do. On the Fourth Situation, 102 boys (82%) responded that if they were Terry, who sees a little boy sobbing in the park, they would stop and try to help the little boy. Almost twice as many achievers (.106) as underachievers (.040) responded that if they were Terry they would walk past the sobbing boy. A large proportion of underachievers (.200) compared to achievers (.040) were undecided what to do if they were Terry.

In the third characteristic--ability to respond adequately to the environment--both descriptive statements (Fifth and Sixth) significantly differentiated the achievers from the underachievers. The responses made to both of these statements reveal a larger proportion of underachievers than achievers who are undecided what to do in the situation described. On the Fifth Situation, 83 per cent of the 125 boys (.934 achievers, .680 underachievers) responded that if they were Leon, from whom the teacher had taken a water pistol, they would obey the school rule, which stated that water pistols could not be brought to school. There were more underachievers (.160) than achievers (.053) who responded they would bring another water pistol to school, and more underachievers than achievers who were undecided what they would do, if they were Leon. On the Sixth Situation, more than one-half (54%) of the 125 boys (.626 achievers, .680

underachievers) responded that if they were Danny they would help his sister, Mona, get her things together so they would have more time to catch the bus. Thirty-five per cent (.307 achievers, .420 underachievers) would make Mona walk by herself, if they were her brother, Danny. Eleven per cent (.066 achievers, .180 underachievers) were undecided.

A contingency coefficient was obtained for the two educational evaluations and the four descriptive situations that significantly differentiated the two groups below the .05 level of significance. The data on these six descriptive items are given in TABLE V and show a moderate degree of association between achievement and body image.

Included in Chapter III were five educational evaluations, ten questionnaire items (projecting positive and less positive perceptions of body image), and the responses to six descriptive situations which accompanied the Six Transparencies. Analysis of the data of the five educational evaluations revealed that the null hypothesis was sustained in all the items except two--"ability grouping" and "classroom participation." The null hypothesis was sustained on all ten questionnaire items, as none of these projected body image items significantly differentiated the seventy-five achievers from the fifty underachievers at the .05 level of significance. However, the null hypothesis was rejected on four of the six descriptive situations--First, Fourth, Fifth, and Sixth Situations. The two educational evaluations and

TABLE V

SIX SIGNIFICANTLY DIFFERENTIATED ITEMS BY CONTINGENCY COEFFICIENT FOR ASSOCIATION: CHI SQUARE, DEGREE OF FREEDOM, AND PROBABILITY VALUES

Significantly Differentiated Items	Chi Square	d.f.	Probability Values	Contingency Coefficient
Educational Evaluations:				
Ability Grouping of Boy	19.545	3	$P < .001$	.3677
Classroom Participation of Boy	6.339	2	$.05 > P > .02$	.2197
Descriptive Situations:				
First Situation	7.895	2	$.02 > P > .01$	.2437
Fourth Situation	9.584	2	$.01 > P > .001$	.2669
Fifth Situation	13.858	2	$.001 > P > .00$	.3159
Sixth Situation	7.930	2	$.02 > P > .01$	.2442

the four descriptive situations were significant at less than the .05 level of significance.

More of the achievers were in the average level of instruction, "appropriate" in their classroom behavior, and participated "moderately" within the classroom. More of the underachievers were in the fair or low-average level of instruction, "aggressive" or "withdrawn" within the classroom, and exhibited "little" or "moderate" participation within the classroom. The null hypothesis is sustained on the remaining three educational evaluations and the two descriptive situations.

Further analysis of the data in Chapter III reveals that the underachievers tended to have greater difficulty in pursuing their own interests, expressing their feelings, and responding adequately to their environment than did the achievers. The data further revealed that more of the underachievers than the achievers were undecided in their decision making.

The findings and interpretation of the data are presented in Chapter IV, and the implications for a better understanding of preadolescent boys and their body images. Additionally, the limitations of the study and suggestions regarding further research are given in Chapter IV.



## CHAPTER IV

### FINDINGS AND INTERPRETATIONS

The purpose of this study was to determine the extent of difference in the perceived body image expressed by seventy-five preadolescent boy achievers and fifty preadolescent boy underachievers. Specifically, this study sought to ascertain that the preadolescent boy achievers would project a higher degree of self-esteem, self-acceptance, and self-confidence than would the preadolescent boy underachievers. This hypothesis--Hypothesis I--was based on the assumption that preadolescent boys have either positive or less positive perceptions of their physical bodies, and these body perceptions may have some association with levels of academic achievement. The positive and less positive perceptions were determined by the preadolescent boys' responses to a questionnaire containing ten research items describing both the physical characteristics and the social attitudes of the preadolescent boys. This study further sought to ascertain that the preadolescent boy underachievers would perceive themselves as being more constricted in their communications with their environment than would the preadolescent boy achievers. This hypothesis--Hypothesis II--was based on the assumption that the perceptions of the achievers and underachievers may be manifested through the pursuit of interests, expression of feelings, and responses to the environment. The perceptions were determined by the preadolescent boys' responses to six transparencies--

accompanied by six descriptive situations--which attempted to reveal the inadequacy the underachievers feel in communicating with their environment as compared to the achievers. The dichotomized study sample was cross-tabulated by each questionnaire and transparency item, and the Chi Square Test for the significance of the difference was computed.

Additionally, the two samples of preadolescent boys were cross-tabulated by five baseline characteristics which collected information about the preadolescent boys, five baseline characteristics which secured socio-economic information about the preadolescent boys' parents, and five educational evaluations which revealed information regarding the preadolescent boys' scholastic participations. The cross-tabulations were made in order to understand the characteristics of the study sample and to determine whether there were any significant differences which might have influenced the responses to the research items. A contingency coefficient was obtained for the two educational evaluations and the four descriptive situations which significantly differentiated the seventy-five preadolescent boy achievers from the fifty preadolescent boy underachievers in an effort to depict the degree of association between the body images of the preadolescent boys and their academic performances.

The study sample, selected from Madison Elementary School in Port Lavaca, Texas, was composed of two groups of preadolescent boys selected from the fifth and sixth grades. From a total of 193 boys, 140 boys met the selected criteria.

Of this total, fifteen of the preadolescent boys withdrew from Madison Elementary, leaving a terminal sample of 125 preadolescent boys. The permanent record cards, I.Q. scores, and the homeroom teachers' evaluations served as the basic criteria for dichotomizing the terminal sample into achievers and underachievers.

The aim of this study was to obtain a more profound understanding of the preadolescent boy achievers and underachievers, and to determine the extent to which their body images influence their academic performances. Hopefully, the results of this study may reveal comparable data to parents, teachers, and educators in anticipation that the data will provide a deeper insight and understanding within the school environment of the preadolescent boy. Previous research has shown that the way in which a child views himself is a significant variable in his performance. Research has further revealed that a deeper insight into the child's body image will serve as a guideline for parents and educators in predicting the child's behavior and future performance in school.

Six basic questions were asked in relation to this study. The first question was:

To what extent does the literature and other significant research discuss the influence that the body image has upon the attitude and the achievement level of the preadolescent boy?

A review of the body image literature revealed that there is a dearth of information specifically regarding the preadolescent boy and his body image. However, the obscure



information that is available has focused on the degree to which the preadolescent boy expresses either a positive or less positive feeling toward his body. Most of the studies available have inferred that a preadolescent boy's body image, attitude, and performance are inseparable. These studies have further revealed that the preadolescent boy does consciously evaluate himself, and that his evaluation is influential in his behavior. This statement can be substantiated by one particularly significant study, conducted by Walsh, concerning preadolescent boys and their body images. The findings revealed a definite correlation between the level of achievement and body image. Walsh's study revealed that the preadolescent boys who failed to project a good body image tended to be underachievers in school.<sup>1</sup>

Various other studies have revealed that the preadolescent period is a definite time for detecting warning signs of dissatisfaction with school. Barrett, for example, found that underachieving is apparent by grade five.<sup>2</sup> It is during this period of preadolescence that many boys tend to fall behind in their work at school, and tend to resist school

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<sup>1</sup>Ruth C. Wylie, The Self-Concept (Lincoln: University of Nebraska Press, 1961), p. 257, citing Anna Walsh, "Self Concepts of Bright Boys with Learning Difficulties," New York Bureau of Public Teachers College, XIII (1956).

<sup>2</sup>C. Burleigh Wellington and Jean Wellington, The Underachievers: Challenges and Guidelines (Chicago: Rand McNally and Company, 1967), p. 65, citing H. G. Barrett, "Underachievement, A Pressing Problem," Bulletin of the Ontario Secondary School Teachers Federation, XXXVI (May 31, 1956), 111-112.



standards. However, various research has revealed that the boys are concerned with the class' image of them, as well as the teachers' perceptions of their worth.<sup>3</sup> This finding tends to infer that the preadolescent boys do perceive an image of themselves which tends to be manifested through their attitudes and achievements.

The second basic question was stated as follows:

To what extent will five descriptive baseline characteristics differentiate the seventy-five preadolescent boy achievers from the fifty preadolescent boy under-achievers?

The descriptive baseline characteristics of the preadolescent boys were obtained by the researcher from information secured from the registration cards, permanent record cards, and I.Q. tests administered at Madison Elementary. These data were subjected to the Chi Square Test for the significance of the difference to determine whether these characteristics differentiated the achievers from the underachievers.

An analysis of the descriptive data indicated that only one of the five descriptive characteristics--physique--of the preadolescent boy tended to differentiate the two groups. More of the achievers had a strong, muscular physique than did the underachievers, whereas more of the underachievers had a soft, round physique than did the achievers. From these data, it would appear that the boys with strong muscular body builds felt very good about their appearances; thus encouraging

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<sup>3</sup>William E. Martin and Celia B. Stendler, Child Development (New York: Harcourt, Brace, and Company, 1953), p. 435.

a higher degree of self-esteem and self-confidence, which enabled the boys to achieve their expected goals. In contrast, it would appear that the boys with soft, round body builds had a difficult time gaining physical recognition within their peer groups; thus causing a lower degree of self-confidence in their attitudes and achievements, which was manifested through the underachievement of their goals. The finding that the two groups were similar with regard to age, I.Q., ethnic group, and sibling position, but were slightly differentiated by physique seems to suggest that both the achievers and underachievers consciously evaluate themselves, and tend to be more concerned with their physical appearances, rather than their other aspects.

Analysis of the remaining descriptive characteristics indicates that the preadolescent boys were predominantly white, between the ages of ten and eleven, either the middle or the oldest child, and had an I.Q. range from 90 to 129. One of the factors of most importance to parents, teachers, and educators, as revealed by the five descriptive items, is that 47.2 per cent of the total group of preadolescent boys were middle children. Of this middle-child group, 52 per cent of the boys were underachievers. In regard to the numerous articles written on the problems of the middle-child, this fact would seem to indicate that the frustrations of being a middle-child may tend to correlate with underachieving.

The third basic question in this study was:

To what extent will the five baseline characteristics of the preadolescent boys' parents differentiate the seventy-five preadolescent boy achievers from the fifty preadolescent boy underachievers?

The descriptive baseline characteristics of the preadolescent boys' parents were obtained by the researcher from the boys' permanent records and the registration cards at Madison Elementary. These data were subjected to the Chi Square Test for the significance of the difference to determine the extent, if any, to which these characteristics differentiated the achievers from the underachievers. The findings revealed the following primary characteristics about the preadolescent boys' parents: married, the father was the head of the house, in the upper-middle or lower-middle socio-economic class, unskilled in their occupations, and had completed grades one through twelve.

None of the five characteristics significantly differentiated the achievers from the underachievers; therefore, the differences in proportion can be attributable to chance. However, there were three interesting items--socio-economic status, education of the head of the house, and marital status of parents--derived from these data which warrant recognition. A greater proportion of the preadolescent boy underachievers' parents were in the lower-lower socio-economic class than were the preadolescent boy achievers' parents. Although the lower-lower class comprised only 12.8 per cent of the total group, this finding may very well deserve further research regarding



the underachiever and his home environment. The second item of interest was the education of the head of the house. Regarding the underachievers, 36 per cent had parents, who were considered to be the head of the house, who either did not attend or did not complete high school, as compared to only 25 per cent of the achievers' parents who were considered to be the head of the house. In contrast, 41 per cent of the achievers' parents, who were considered to be the head of the house, had either attended or completed college, as compared to only 18 per cent of the underachievers' parents. This finding would seem to indicate that the more education the parent, who is the head of the house, has accomplished, the more encouragement the preadolescent would receive, which would tend to increase his desire to achieve in his school environment. The third item of interest is that three times as many of the achievers' parents were either separated, divorced, or widowed as compared to the underachievers' parents.

The fourth basic question was:

Will the five educational evaluations differentiate the seventy-five preadolescent boy achievers from the fifty preadolescent boy underachievers?

Each preadolescent boy was educationally evaluated by his homeroom teacher. The dichotomized study sample was cross-tabulated by each item and the Chi Square Test for the significance of the difference was computed. Of the five educational items, two had probability values less than the .05 level. A contingency coefficient was obtained for these



two items, each of which displayed a moderate degree of association between the preadolescent boy's achievement and body image. The two significant educational items which differentiated the two samples were "ability grouping" and "classroom participation."

The evaluations of the educational characteristics revealed that more than one-half--in some instances more than two-thirds--of the 125 boys were deemed by their teachers to have enriched or average ability, were appropriate in classroom attitude, moderate in classroom and sports participation, and were regular in attendance. As might be expected, more achievers than underachievers were estimated enriched or average in ability by teachers, while more underachievers than achievers were estimated by teachers to have low average or fair ability. More underachievers than achievers exhibited little participation in class, whereas more of the achievers maintained appropriate classroom participation than did the underachievers. From these data, it would seem that the underachievers have a tendency to be more inhibited in their classroom participation than do the achievers; hence they have a more difficult time expressing themselves. Further analysis of the educational characteristics revealed that more of the underachievers exhibited either an aggressive or a withdrawn attitude within the classroom than did the achievers, whereas a greater proportion of achievers exhibited an acceptable attitude within the classroom than was exhibited by the underachievers. This finding suggests that there is

a tendency for the preadolescent boy achievers to have positive feelings about themselves which are often revealed through pleasant and enthusiastic attitudes within the classroom. In contrast, this finding suggests that underachievers have a tendency either to overcompensate or to undercompensate for their less positive feeling about themselves through either a belligerent or a withdrawn classroom attitude.

The fifth basic question stated within this study was:

To what extent, if any, will the responses to the ten selected questionnaire items, each of which attempts to operationally define positive and less positive body image, differentiate the seventy-five preadolescent boy achievers from the fifty preadolescent boy underachievers?

The Questionnaire was administered by the researcher to both groups of preadolescent boys. The dichotomized study sample was cross-tabulated by each preadolescent boy's response, and the Chi Square Test for the significance of the difference was computed. None of the ten items significantly differentiated the two groups below the .05 level of significance; thus the data did not sustain Hypothesis I.

Analysis of the data indicated that almost all 125 boys--82 to 96 per cent--felt positive about their nose, eyes, hair, weight, and strength. This same percentage of boys expressed positive feelings about their performance in sports and in school. They also believed their classmates, teachers, and parents had positive feelings about them. A few more underachievers than achievers believed they were good in

sports, not so good in school performance, and that their teachers did not feel too positive about them.

The sixth basic question stated within this study was:

To what extent, if any, will the responses to the six transparencies significantly reveal that pre-adolescent boy underachievers are more constricted in their communications with their world than are the preadolescent boy achievers?

The six transparencies were projected to both groups of preadolescent boys. A situation was described with each of the six transparencies, and both groups of preadolescent boys were asked to record their responses after each given descriptive situation.<sup>4</sup> These descriptive situations entailed making positive or less positive decisions involving three characteristics: 1) pursuit of interests, 2) expression of feelings, and 3) ability to respond adequately to the environment. The dichotomized study sample was cross-tabulated by each item and the Chi Square Test for the significance of the difference was computed. Of the six descriptive situations and transparencies asked the preadolescent boys, four had probability values less than the .05 level; thus the data partially sustained Hypothesis II. A contingency coefficient was obtained for the four items, each of which showed a moderate degree of association between the preadolescent boy's achievement and body image in the fifth and sixth grades.

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<sup>4</sup>APPENDIX C. Copy of Descriptive Situations, pp. 83-84.



Analysis of the data revealed that one-half of the 125 boys were able to pursue their own interests rather than permit their friends to deter them. In one situation, there were significantly more achievers than underachievers who expressed an ability to pursue their own interests. In the other situation there were more underachievers than achievers who would not follow their own interests. Sixty to eighty per cent of the 125 boys were able to express their own feelings overtly--to hit out in one situation, and to stop and comfort in the other. In the latter situation, significantly more achievers than underachievers expressed an ability to stop and comfort. More than one-half of the 125 boys responded appropriately to their environment. Eighty-three per cent expressed a desire to obey a school rule about bringing a water pistol to school. Significantly more achievers than underachievers responded appropriately to their environment. The responses to all six situations revealed more underachievers than achievers who were undecided in pursuit of their own interests, in the expression of their feelings, and in responding appropriately to their environment. In the latter situations, the undecided responses of the underachievers influenced significantly the difference.

The major purpose of this study was to contribute further knowledge to parents, teachers, and educators as to the manner in which the preadolescent boys view themselves. Since the way in which a child views himself is a significant variable in his performance, it was further proposed that



this study would enable one to predict the behavior of the preadolescent boy more accurately. It was further proposed that this study would serve as a guideline for the preadolescent boys' teachers. Many times a preadolescent boy begins to lose his enthusiasm, self-esteem, and self-acceptance, and the school is one of the first social institutions in which this less positive image is revealed. The teacher needs to detect these signs of dissatisfaction which the preadolescent boys often display in order to alleviate some of the problems associated with the age of preadolescence. If the preadolescent boy is constantly unable to achieve his goals, he tends to lose his self-confidence; thus repeated failures tend to tear down his body image.

There are several implications that arise from the two educational evaluations and the four descriptive situations which differentiated significantly the preadolescent boy achievers and the preadolescent boy underachievers. These items suggest that the preadolescent boys do evaluate themselves both physically and socially. It appears that when a preadolescent boy is not accepted socially, his manner becomes either withdrawn or aggressive. The preadolescent boys seem to be in constant search of ways to gain recognition within their peer group. This recognition seems to be hindered when the preadolescent boys are grouped into different levels of achievement. It appears that when an underachiever is placed within a lower level of achievement, he tends to lose more of his self-acceptance, self-esteem, and self-confidence

than has previously been ascertained. Two main implications derived from this study are: 1) the preadolescent boy achievers have a more positive body image than do the preadolescent boy underachievers, and 2) underachievers find it more difficult to make either a positive or negative decision; they are, therefore, undecided in their responses to various environmental situations.

There were four basic limitations of this study. The Questionnaire and the Transparencies, accompanied by six descriptive situations, were developed by the researcher and were not validated instruments. A second limitation was the fact that the preadolescent boys in the study were evaluated by several homeroom teachers; thus encountering various differences in evaluation. The third limitation was that time did not permit a personal interview with each preadolescent boy. A personal interview with each preadolescent boy, especially the underachievers, would have provided the researcher with a deeper insight into each preadolescent boy's environment. The fourth limitation questions the validity of the I.Q. Test, which was used as part of the criteria for dichotomizing the study sample.

There are a number of questions which are prompted by this research which could be pursued in future research studies. One area for future study is learning more about the school's accommodations for the underachievers. Are the teachers qualified to detect signs of underachievement, and if so, what methods do they utilize in alleviating this

problem? Research may also be of value in an effort to determine how beneficial or detrimental quality grouping is to the underachievers. Research in this area may also be of value in an effort to determine the effect quality grouping has upon the body image of the preadolescent boy.

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## APPENDICES

APPENDIX A

BASELINE CHARACTERISTICS AND EDUCATIONAL  
EVALUATION OF PREADOLESCENT BOY  
ACHIEVERS AND UNDERACHIEVERS

AND

BASELINE CHARACTERISTICS OF PARENTS OF  
PREADOLESCENT BOYS

## SCHEDULE

PART I. BASELINE CHARACTERISTICS OF PREADOLESCENT BOY  
ACHIEVERS AND UNDERACHIEVERS.

1. Age of Boy
  - a. ( ) Ten years
  - b. ( ) Eleven years
  - c. ( ) Twelve years
2. I.Q. of Boy
  - a. ( ) 90-110
  - b. ( ) 110-130
  - c. ( ) 130 and above
3. Ethnic Group of Boy
  - a. ( ) Anglo-American
  - b. ( ) Mexican-American
  - c. ( ) Afro-American
4. Physique of Boy
  - a. ( ) Soft, round
  - b. ( ) Strong, muscular
  - c. ( ) Slender, fragile
5. Sibling Position of Boy
  - a. ( ) Only child
  - b. ( ) Youngest child
  - c. ( ) Middle child
  - d. ( ) Oldest child

Name of Child \_\_\_\_\_

Assistance Category  
( ) Achiever  
( ) Underachiever

PART II. BASELINE CHARACTERISTICS OF PARENTS OF  
PREADOLESCENT BOYS

1. Marital Status of Parents
  - a. ( ) Married
  - b. ( ) Separated
  - c. ( ) Divorced
  - d. ( ) Widowed
2. Socio-Economic Status of Family
  - a. ( ) Upper Middle
  - b. ( ) Lower Middle
  - c. ( ) Upper Lower
  - d. ( ) Lower Lower
3. Head of House
  - a. ( ) Father
  - b. ( ) Mother
  - c. ( ) Other Relative
  - d. ( ) Foster Parents
4. Occupation of Head of House
  - a. ( ) Unskilled
  - b. ( ) Skilled
  - c. ( ) Professional
5. Education of Head of House
  - a. ( ) Grades 1-8
  - b. ( ) Some High School
  - c. ( ) High School
  - d. ( ) Some College
  - e. ( ) College

Name of Child \_\_\_\_\_

Assistance Category  
( ) Achiever  
( ) Underachiever



PART III. EDUCATIONAL EVALUATION OF PREADOLESCENT BOY  
ACHIEVERS AND UNDERACHIEVERS

1. Ability Grouping of Boy
  - a. ( ) Enriched
  - b. ( ) Average
  - c. ( ) Low Average
  - d. ( ) Fair
2. Classroom Attitude of Boy
  - a. ( ) Aggressive
  - b. ( ) Appropriate
  - c. ( ) Withdrawn
3. Classroom Participation of Boy
  - a. ( ) Excessive
  - b. ( ) Moderate
  - c. ( ) Little
4. Sports Participation of Boy
  - a. ( ) Excessive
  - b. ( ) Moderate
  - c. ( ) Little, if any
5. Attendance Record of Boy
  - a. ( ) Good
  - b. ( ) Fair
  - c. ( ) Poor

Name of Child \_\_\_\_\_

Assistance Category

( ) Achiever  
( ) Underachiever

APPENDIX B  
QUESTIONNAIRE

# QUESTIONNAIRE<sup>1</sup>

Please read the following questions carefully and respond to each question by placing an X in one of the three categories--very good, somewhat good, or not good. If desired, you may explain your response on each designated line.

	Very Good	Somewhat Good	Not Good
1. How do you feel about the shape of your nose? _____			
2. How do you feel about your eyes? _____ _____			
3. How do you feel about your hair? _____ _____			
4. How do you feel about your height? _____ _____			
5. How do you feel about your strength? _____ _____			
6. How do you rate in sports? _____ _____			
7. How do you feel about your performance in your school work? _____			
8. How do your classmates feel about you? _____			
9. How do your teachers feel about you? _____			
10. How do your parents feel about you? _____ _____			

Name \_\_\_\_\_

Assistance Category  
 { } Achiever  
 { } Underachiever

<sup>1</sup>This questionnaire will be used to test Hypothesis I.

APPENDIX C

DESCRIPTIVE SITUATIONS AND RESPONSES



## I. DESCRIPTIVE SITUATIONS

As each transparency is projected to the preadolescent boys, the following situations will be described by the researcher to accompany each projected picture. The preadolescent boys are to record their response to each described situation on the response sheet.

### Ability to Pursue Own Interests

#### First Situation:

Bobby wants to take art lessons after school twice a week. His best friend, Timmy, is angry with him because he won't stay after school and play on the school's basketball team. Timmy has even threatened to quit playing with him. If you were Bobby, would you--

#### Second Situation:

The Boy Scout Troop is on a hike. The Scout Master has given the boys an hour to explore on their own, within a designated area. Johnny wants to go on a particular trail to look for arrowheads. Several of his friends want him to go with them to a little creek. His friends become very angry with him because he doesn't want to waste his hour at the creek. If you were Johnny, would you--

### Ability to Express Feelings

#### Third Situation:

Kenneth was pouring water in Sammy's lunch tray in the cafeteria. Sammy asked Kenneth to quit but Kenneth just laughed and continued pouring the water. If you were Sammy, would you--

#### Fourth Situation:

Terry goes to the park one Saturday afternoon and walks past a little boy sitting on the bench resting his head on one hand. The little boy is sobbing quietly. Terry feels very sorry for him. If you were Terry, would you--

Respond Adequately to Environment

## Fifth Situation:

The school had a rule that no one could bring a water pistol to school. Leon brought one and at recess he filled it and had a good time squirting some of his friends. They took turns. The teacher took his water pistol away from him. If you were Leon, would you--

## Sixth Situation:

Danny was nearly always angry at his little sister. His mother made him wait for her so she would not have to walk to the bus by herself. Mona had trouble finding her things. She did cause them to have to run to the bus stop and sometimes they were almost late. If you were Danny, would you--

## II. RESPONSES TO TRANSPARENCIES AND DESCRIPTIVE SITUATIONS

### First Situation

- a. ( ) Take art lessons.
- b. ( ) Play on the basketball team.
- c. ( ) Undecided.

### Second Situation

- a. ( ) Go look for arrowheads.
- b. ( ) Go with friends to the creek.
- c. ( ) Undecided.

### Third Situation

- a. ( ) Hit Kenneth.
- b. ( ) Get up and walk out.
- c. ( ) Undecided.

### Fourth Situation

- a. ( ) Stop and try to help him.
- b. ( ) Walk past him.
- c. ( ) Undecided.

### Fifth Situation

- a. ( ) Obey the school rule.
- b. ( ) Bring another water pistol.
- c. ( ) Undecided.

### Sixth Situation

- a. ( ) Wait for Mona and try to help her get her things together.
- b. ( ) Make Mona walk by herself.
- c. ( ) Undecided.

Name of Child \_\_\_\_\_

Assistance Category  
( ) Achiever  
( ) Underachiever

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