THE RELATIONSHIPS BETWEEN SELF-CONCEPT, MOTOR ABILITY AND PEER EVALUATION FOR JUNIOR HIGH SCHOOL GIRLS

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DOROTHY BERLIN ZAKRAJSEK
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By

Dorothy Berlin Zakrajsek

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ABSTRACT

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Statement of the Problem

It was the purpose of this study to investigate the relationship between self-concept and motor ability, and peer evaluation of motor ability as it relates to self-concept.

Procedure

One hundred and eighty-four (184) junior high school girls participated in this study. This figure represents all of the seventh and eighth graders. Self-concept and motor ability tests were administered to each girl. The Pearson Product-Moment Correlation Coefficient was used to determine the relationship between the variables of self-concept and motor ability. This correlation was then computed for each grade level. A peer evaluation of motor ability resulted in calculations of the means between motor ability and self-concept scores for highly and poorly skilled students. The F-test and the appropriate t-test were used to determine the difference between means. The highest and lowest motor ability scores were matched with their

self-concept scores and the latter was calculated for significance between means. The highest and lowest self-concept scores were matched with their respective motor ability scores and calculated for significance between means.

Conclusions

From the statistical analysis of data, the following conclusions were drawn:

1. There is a significant relationship between self-concept and motor ability at the .01 level of confidence.
2. Students with high self-concepts score higher in motor performance.
3. Students with low self-concept score lower in motor performance.
4. Students who score high in motor performance have higher positive attitudes toward themselves.
5. Students who score low in motor performance have lower and more negative attitudes toward themselves.
6. Students who are rated high for physical skills by their peers have higher self-concepts and have higher motor abilities.
7. Students who are rated low for poor physical skills by their peers have lower self-concepts and lower motor abilities.

8. There was a difference between seventh an eighth grade correlations of motor ability and self-concept. Significance for the seventh grade was at the .01 level of confidence and the eighth grade was .05, however, both were significant.

Recommendations

It is felt that there is a need for further investigation. Some suggestions would be:

1. a larger sample.
2. a comparison study between an inferior physical education program and superior one.
3. a comparison study between junior high boys and girls.
4. a comparison study between girls enrolled in physical education classes and girls playing interscholastically.

DEDICATION

Dedicated to my aunt and uncle,
Dr. and Mrs. A. A. Speir, for their
faith, understanding and encouragement.

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I extend my sincerest thanks to Dr. Thelma Bishop whose guiding philosophy and continual direction, stimulation and assistance made this thesis possible.

Gratitude is also expressed to Mary Kurek, physical education instructor and the girls of Chesaning Jr. High School who gave their time.

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CHAPTER I

INTRODUCTION

Physical educators understand that their program is one phase of the total educational process, but too often programs are allowed to develop and expand visualizing physical education as an organized recess, exercise class, or play time. Too often programs forget the "total" individual.

Since physical education overlaps with many other disciplines and education is the total self, we cannot separate the mind from the body in determining desired goals or outcomes. It is imperative that every good physical education program should be formulated for the total organism to gain maximum achievement through physical education.

Clarke (3) historically summerizes organismic totality.

> Milestones in the growth of this concept were: the Greek education of the fifth century B. C., which recognized the need for balance in mental, social and physical education of the individual; the expressions of Locke, Rousseau, and other European philosophers that in a sane body lies a sane mind, a thpught voiced later by Horace Mann, Henry Barnard, and Herbert Spencer.

Although we have spoken freely and loosely about the "wholeness of man" concept in education, the responsibility for realistically defining, clarifying, and interpreting

the role of physical education in the education of our children lies with physical educators.

This study is directed toward the total being in his physical and emotional make-up. It is concerned with the contributions that physical education can make in educating the individual. What is the role of physical education and its influence in developing the total self? Can a poor physical education department in a school result in not only a loss of physical skills but also deprive the student of one area for enhancing the self-image?

These questions prompted this study in a school which has need for an improved physical education curriculum. (The present curriculum is outlined in Chapter III.) The girls in this community do not have the opportunity to develop skills in physical activities. Activities which enhance physical attractiveness are important to the adolescent girl. Bucher, Koenig, and Barnhard (1, p. 30) remind us that:

> Younger girls love to play all kinds of games, but with physical development comes an increased desire for attractiveness, grace, poise, and balance, rather than extreme physical prowess. This aspect of their interests can and should be served in the teaching programs, with dance and fitness activities stressing these goals.

In the community used in this study the responsibility for meeting the objectives of physical education lies with the school. There is no organized recreational program for the girls in this area other than summer swimming. Even if the community provided many opportunities,

most of the girls would be denied participation because of travel distance; so it becomes imperative that this school emerge as the instructional force in physical education for these girls.

This study is seen as one possible approach in calling attention to the needs of the students involved in sub-standard physical education classes and implementing this awareness into some positive action.

As research continues to enlighten physical educators in the psychological aspects of growth patterns, it leaves tremendous implications for program building, program defining, and program evaluating according to individual needs.

Statement of the Problem

It was the purpose of this study to (1) determine the relationship between self-concept and motor ability, and (2) to ascertain the relationship between peer group subjective evaluation of highly and lowly skilled students with their own self-concept.

This basic hypothesis was studied to answer the following questions.

1. Do individuals with high positive attitudes toward themselves also score high in general motor ability tests?
2. Does low concept of self correlate signigicantly with general motor ability?
3. Do individuals with high motor ability scores rate themselves high in self-concept?
4. Do students with low motor ability scores rate themselves low in self-concept?

5. Is there a significant difference in motor ability scores between the highly and lowly skilled students as selected by their peers?

6. Is there a significant difference in self-concept scores between the highly and lowly skilled students as selected by their peers?

Importance of the Problem

This study is concerned with the psychological and emotional contributions physical education can make to the indivudual. If positive and significant relationships exist between self-concept and motor ability, the role of physical education in the total program becomes more definitive and this information would be helpful in determining physical education curriculum and might lead to a more "individualized" program.

In the science oriented culture of today, we in physical education need some facts and figures to refute doubful skeptics who might point an accusing finger in our direction. In a time when financial demands of various educational programs are vying for creation, existence, and expansion; some facts founded on research data defining who we are, why we are here, and where we are going become extremely necessary. Cratty (5) says, "school administrators want to know what the physical educators are doing and why and how they propose to do it."

Thus a need exists in the program for good testing. Scores received in testing are not only indicative of strengths and weaknesses of the student, useful guidelines for improved programs, but have value in interpreting the

program to the administration and lay groups. It was especially with this latter thought in mind that this study was undertaken.

With the prevalence of psychological literature, the impact for the "why" of physical education becomes even more apparent. Constant reference is found in the literature pointing to the importance of body-image and self-concept in the formation of a healthy personality structure.

Ulrich (28) recently stated:

> . . . research has provided us with some interesting psychological data which can enhance our teaching. Some of the most interesting work lately has been done with regard to the self-image, movement image, and body concepts of the individual.

Since one of the problems confronting society today is the growing number of distorted personalities, the media of education becomes directly involved. If one of the aims of education is to develop a well adjusted individual, then it is necessary that the individual conceive a wholesome and positive attitude toward herself. It is generally conceded that physical education contributes to this general aim by presenting situations in different activities where the individual can achieve success. Success is one basic factor in self-concept development. Strang (15) substantiates this:

> One way of building an adolescent's self-esteem and self-confidence is by placing him in situations in which he can succeed. Enabling him to see for himself that he can do the task required or relate himself happily to others is more effective than giving him a pep talk or reassurance.

Staton (14) agrees:

> . . .successes in the field of physical endeavor can be immensely valuable in building the confidences of the adolescent and helping him develop a favorable concept of himself and his potentialities.

Schneiders (11) reaffirms this position.

> . . .the teenager craves achievement, and the kind of experience that will give more meaning and zest to his life. Achievement, of course, contributes to a sense of importance and worthwhileness, and often leads to greater acceptance by members of the peer group, by teachers, and by parents.

The core of this study is reflected in psychological advancements. If personality is shaped and molded through body images and its achievements, then physical education should be committed to this objective and reinforced in this area of general education. Only by focusing attention on the whole person and remembering the whole person reacts to all situations can the objectives of education become a reality.

Limitations of the Study

The limitations of this study are recognized as: sample, school, tests selected, facilities, and variables affecting test results.

Sample. The girls participating in this study have had very little contact with a physical education program. The number of girls limits the scope. The author recognizes that one hundred and eighty-four girls is a small group for a study of this type. The study was also limited to girls.

School. The study is limited to girls attending one specific junior high school. The results of this

investigation are not necessarily indicative of the reactions of junior high school girls (grades seven and eight) in general.

Tests available. The selection of the motor ability test was determined in large part by such aspects as: facilities and equipment needed to meet test administration and the time and ease of administering such a test. There were few tests available which met this testing requirement.

The self-concept test was used on the recommendation of the testing department of educational psychology at Michigan State University.

These tests were selected because they appropriately met the testing needs for this study. However, any limitations in these tests would also result in limitations to the study.

Facilities. Make-up tests could have been a hindrance to the study. Because of limited gymnasium space, make-up tests were administered before or after the regular class and those students not involved watched from bleacher seats. Some of the girls may not have performed to their fullest capacity.

Variables affecting tests. Some of the variables affecting motor ability performance could have been a result of colds, psychological, and other physical problems.

The greatest single factor involved in the self-concept test is obtaining completely true judgments. Brandt (20) found:

> It is probably not possible to remove the psychological threat completely when submitting people to self rating procedures. . . .Some distortion of "real" self judgments among expressed ratings is to be expected.

Krech and Crutchfield (10) would add the limitation of different standards for measuring self-concept. "One person may rate himself objectively but another might have a different set of standards governing the same judgments."

Another limitation regarding the data of the self-concept test was the poor reading skills and comprehension level of some of the students. Because of this some misrepresentation of valid responses may have occurred.

Even though careful explanations guarding peer selections were observed by the author, the possibility of positive or negative feelings might have influenced judgments.

CHAPTER II

REVIEW OF LITERATURE

"Know Thyself!" was inscribed on the entrance to the famous temple of Apollo at Delphi in old Greece.

Everyday we talk about the "self." The use of the pronouns is common vocabulary employed in making reference to the self.

Self-concept is an idea of self. This concept is determined by everything that has happened to the self until now. It is the idea, states Schneiders (12), that a person has of himself--his meaning and worth, his particular identity, his feeling, attitudes, values, beliefs, experiences, failures, hopes goals, and aspirations.

> The self-concept is not always a clearly defined entity; in any single person it may be quite nebulous and shifting; but it is always in the center of the adolescent's striving for identity and for adequate adjustment.

A general agreement of definition for the term self-concept centers around the key words "individual's appraisal of himself." The individual subjectively and objectively judges or rates himself at a particular time using people and culture that he perceives as norms.

A child is not born with a concept of self, hence, self-concept is determined through environmental factors. This formation begins in the tender stages of infancy.

Combs and Snygg (4) report that early self-concept is stabilized in preschool years but major changes are likely all through life. Adolescence is a most crucial stage for development of the self-concept because during this period the physical self is undergoing drastic changes. Strang says, "during early adolescence acceptance of bodily changes contributes to the self-concept" (15, p. 81).

Strang (15, p. 225) continues:

> In various ways glandular changes and the resulting physical development that occurs during this period affect adolescents' self-concepts and their social relations.

Cratty (5) states that "failure to accept and adjust to bodily changes occurring during adolescence may have a marked psychological effect upon behavior."

Influences in the Development of Self-Concept

Influences in the development of self-concept of a child reported by Bledsoe (18) are the results of what the child is told to do and how he feels he is treated by others. Combs and Snygg (4) agree.

> We have already suggested that the self is the product of the individual's experience. Each of us discovers who he is and what he is from events that have occurred in his lifetime, but most particularly from the ways he has been treated by those close to him in the course of growing up.

Bledsoe (18) also pointed out that maturation influences one's concept of self. Videbeck (29) found in his study that there are many determinants of self-concepts. These mainly are peers, significant others and

socio-economic background. Significant others are the people who matter the most to the individual. They are usually parents, teachers, and leaders of organizations in which the student belongs. Schneiders (12) points to a person's clothes, his home, family car, and other material possessions as a part of the economic framework forming self-concept.

Objective characteristics are generally seen as an influence of self-concept. These are measurable judgments that we are in contact with just by being with people. This is the feedback information we see, hear, and feel from the outside world.

Strang (15) notes "that having the mental ability to meet the demands of the environment also enhances the self-concept."

Comparison of self reflects changes of self-concept. We are constantly both consciously and unconsciously comparing the self to a group. As members of a group the self-image grows from this group. Schneiders (12) believes that:

> What the individual conceives himself to be is to an important extent a reflection of the opinions and attitudes of the group to which he belongs, particularly the peer group. This is to be expected during adolescence since social values, under the influence of social needs, begins to take a more definite form.

Self-Concept, Body-Image and Movement

Recent literature calls attention to the body-image as significantly related to the self-concept. This is

turn reflects the body not only as a stationary anatomical being but the moving being as well.

Schneiders (11) reports that "the self-concept embraces an image of the body and what it should and should not do." He further supports this:

> In the gradual emergence of the body-image, the continuous change in function, size, and appearance of the bodily apparatus during adolescence has deep seated psychological implications. . . .At no one point can the adolescent be sure of his physical status, and this uncertainly is disturbing because of the effect on the self-concept, and also because of the social implications physical status is thought to have.

Strang (15) observes that "the rapid changes that take place during adolescence in height, weight, body build, facial appearance, and voice necessitate a change in the adolescent's body image."

Schneiders (11) links body image, movement, and self-concept together.

> The implications of adolescent physical development are further extended by reason of the role which bodily mechanism plays in expressive movement. Expressive movement is the mode par excellence by which the self is externalized, and for that reason it plays a leading role in the development of the self-concept.

The literature agrees that the adolescent's self-concept is related to body-image and concurs that this is reflected during these particular years. Biological factors determine movements which affect the self-concept and this self-concept affects the expressive movement of the individual.

Cratty (5) states.

> As adolescence is reached three interrelated forces combine to alter movement attributes. (1) A growth spurt occurs, which, accompanied by harmonal fluctuations, serves to change body shape and size and to alter performance potential. (2) These body-build changes tend to affect the individual's feelings about himself, which, in turn, affect performance. (3) Changing cultural demands are felt concerning the kind of acceptable movement tasks to engage in.

Schneiders (11) verifies this.

> At no time do we like to admit clumsiness or lack of graceful physical expression. And certainly this problem is greatest during the adolescent period when expressive movements are at a distinctively low ebb of efficiency.

Abernathy (17) reports that the roles of movement in concept formation, in perceptual development, in creativity, in stimulation of problem solving are coming more into focus. Also studies are being directed toward body-image, self acceptance, and accuracy of self-perception in moving.

Jacob (25) says.

> One of the most important preventatives of the negative identity is a sense of self-direction and positive control built up in connection with the core of the self-concept, the body image.

Reactions of the Determinants of Self-Concept

Self-concept can lead to conclusions. These can be negative or positive. If a low self-concept is visualized, then an individual can withdraw feeling that whatever he might say or do will be wrong. Schneiders (12) contends that feelings and attitudes based on negative self-concept can lead to a great deal of frustration. Bledsoe (18)

states that a healthy self-concept develops out of a social setting that is desirable and wholesome. He further concludes that "the manner in which one perceives himself is regarded as one indicator of the degree of mental health he possesses." Following this same thought, Schneiders (12) says:

> As the self emeges more clearly during adolescence, there is continued growth of the self-concept, an element of personality formation that has come to be recognized as one of the most important determinants of adequate adjustment and mental health.

Strang (15) concurs that "a positive attitude toward the self in all aspects of life is a most important determinant of successful life adjustment.

The older we become the easier it is to predict one's self or another. We fall into patterns of behavior according to the outside perceptions we receive. These perceptions tend to become habitually selective according to some self ideas.

Combs and Snygg (4) suggest that all behavior of the individual is related to his perception of self. They state that "the self-concept not only influences behavior but is itself altered and restructured by behavior and unsatisfied needs."

Rating the Self-Concept

Brandt (20) found that Americans generally overrate themselves. Many studies showed that boys and girls overestimate themselves. Brandt reported that "although, both

sex groups tended to overrate more than to underrate themselves, this tendency was significantly greater among the boys" (20, p. 82).

Strang (15) states that:

> For several reasons it is often difficult to obtain an accurate picture of an individual's self-concept. Some adolescents depreciate themselves because they are afraid of appearing conceited. His evaluation of himself may be unrealistic because it is based on distorted values or because he is holding the lid on certain aspects of his self that he does not want to recognize.

Despite the existing limitations for self ratings viewed in the preceding chapter, self appraisal is still the best means for measuring the individual concurred Krech and Crutchfield (10).

Self-Concept and Achievement

White (32) concluded that academic achievement is in general harmony with concept of self. She further asserted that "lack of confidence in self seems to take away one's 'can-ness'".

Supportive evidence was obtained from many studies. In a study by Videbeck, he states that "self-concept of ability is significantly related to school achievement. . . There is some evidence to suggest that a student's performance in task oriented situations is influenced directly by his concept of self" (29).

Bledsoe reported also that "there is substantial evidence which indicates a relationship between self-concept and school achievement" (18).

Miller (31) cited evidence indicating that self-esteem and self-regard were related to achievement.

Dyson said that "those who earn higher grades report significantly more positive self-concepts while those who earn poor grades report significantly less positive self-concepts" (30).

It was found by Brookover (21) that previous studies shared the common idea that one's self-concept can affect his performance and behavior. There was also evidence in the literature that changes in levels of performance or behavior do relate to changes in self-concept.

Cratty (22) declares that the psycho-analytic literature makes constant references to the importance of body-image and self-concept in the formation of a healthy personality structure. It is common observation that the self-concept of growing boys is largely based upon the manner in which they perform physical activities approved by the culture. This is also true of the cultural demands of society pertaining to girls.

Cratty (5) explains this.

> During adolescence the boys are encouraged, threatened, and offered every cultural sanction to participate in and, above all to excell in athletic skills. Girls on the other hand, are often discouraged from placing too much emphasis upon athletic participation. Thus during adolescence, both the male and female are introduced more precisely to what the American culture considers to be appropriate adult feminine and masculine behavior including the intensity and type of athletic skills in which they may participate.

Clarke (3) says that "body poise and grace are recognized as immediate desirable traits for girls." Strang (15) feels "improved personal appearance for girls and increased strength for boys are among the strongest motivations for healthy living."

"Junior high school girls are interested in sports, but their interest lags behind that of boys as they grow older," contends Strang (15).

Cratty (5) reports that Coleman's study, "The Adolescent Society," found that one half of the boys wanted to be remembered after high school as athletes rather than as leaders in activities, brilliant scholars, or most popular. Adolescent girls could succeed socially by being attractive, dressing well, and by coming from a family with above average cultural advantages. Cheerleading was viewed as an activity enhancing the self.

Clarke (3) concluded that:

> In physical education meager as the experience has been rating scales, social distance tests and sociometric questionnaires have been more effective in identifying boys and girls with personality difficulties and social problems than have inventory-type tests.

He (3) reported that "the results show signigicant relationships of physical and motor fitness measures to peer status, leadership qualities and personal and social traits."

Implications for Self-Concept to Learning

It was stated by Combs and Snygg (4) that if the individual perceives learning a task as contributing to the enhancement of self, it is entered willingly and happily. If the individual sees the reverse as a threat to self, this results in avoiding the task. It is further made known that:

> While the burden of these ideas have centered about the effect of the self-concept upon learning, it is apparent also that the learning experience rebounds upon the self-concept (4).

Landsman (26) noted that "learning is internalized more rapidly as it is perceived by the learner as being related to positive aspects of his self."

A study by Schmuck (27) supported the theory that an individual's academic performance is conditioned to some extent by the emotional and cognitive contents associated with his self-concepts as peer and pupil. Furthermore that these self-concepts are formed, at least in part, by one's social relations in the classroom peer group.

"The individual differences in self-concept are critical, significant, and over-powering in the determination of non-learning vs learning," states Landsman (26).

Associations With Peer Groups

The psychological literature contains much of interest to the physical educator. Gratty (22) points out that the work of the social psychologist helps to clarify the role

of the peer group and of the family in forming the child's attitudes toward physical activity.

In a study by Foshay, et al., (6), it was his premise that a strong positive relationship existed between the things that children would identify as making them feel important and the things which they recognized in others as symbols of high group acceptance. This study was tested in grades three through six. Sixty-seven percent of all responses fell in three categories. Twenty-three percent, the second highest category, valued the ability to play games well as important to them. Two open-ended questions were asked. These were: What I like about myself and what I don't like. It was interesting to note that play skills only appeared in the negative question. This study concluded that what is used in self evaluation is also used in evaluating others. Another conclusion was that judgments about others is made partly on the basis of play skills.

It was observed by Landsman (26) that those learning tasks in the school curriculum perceived as being related to the self will be more quickly grasped. The adolescent who thinks of his peer group as significant to his self will react to the learning situations according to the views of his peer group.

It is recognized that the perception of the self can alter with the group. A woman in a room with two

Miss America candidates might perceive herself quite differently than in a room with P. T. A. members.

Combs and Snygg (4) state that "individuals tend to seek self esteem through winning the approval of groups or individuals they believe to be important, but they tend also to withdraw from groups which no longer contribute to their feelings of importance."

Hurlock (8) reports that there is a marked relationship between acceptance of self and acceptance by others, just as there is a marked relationship between rejection by self and rejection by others. Hurlock (8) reasons that the adolescent who can do things with others and who has enough self-confidence to be willing to use his skills, has an asset that contributes to his acceptance.

Strang (15) emphasizes:

> Adolescence should be viewed as an opportunity for achieving a realistic, stable, socially acceptable and personally satisfying self-concept. Adolescents need experiences that help them to 'move toward others with friendliness.' They need to understand their development and take pride in their growth, in wisdom, stature, human relations, and specific skills.

Motor Ability

"By and large," Willgoose (16) states, "human performance is a total body effort, and motor ability scores frequently reflect many physical and psychological capacities."

Motor ability was defined as the development level of one's native capacity to learn motor skills.

measurement of motor ability takes into consideration many factors. Physical, mental, emotional and social aspects make up efficient motor performance.

According to Clarke (3) this is the Gestalt theory of psychology with the whole personality dynamically organized which results in excellent performance. Physically, motor ability is composed of strength, endurance, speed, and the coordination of control of these elements for accuracy. Willgoose (16) would add eye-foot coordination, power, peripheral vision, and rhythm. Scott and French (13) include balance and weight control.

Scott and French (13) have interpreted motor ability to parallel with achievement in basic motor skills or as a more general term combining the concepts of motor educability and achievement. Therefore, they are considered dual and interdependent aspects of general motor ability.

Jewett and Clapp (9) evaluate motor skills or ability in the social setting.

> Motor skills play an important role as a vehicle for social development, for much social interaction centers around physical skills. Motor ability is highly related to the emotional features of a child's behavior. Participation in play and games gives youth many opportunities for experiencing the thrills, risks, failures or successes that make for morale and emotional equilibrium.

Willgoose (16) states that:

> General motor ability is a fascinating topic for sooner or later in the study of it one is bound to cross trails with most educational disciplines and numerous characteristics of human behavior. This is because the organism acts as a whole, and its level of ability is manifest in a variety of ways. . .

Originally motor ability was tested to arouse an interest in all-round physical proficiency. Testing now is primarily for classification of homogenous grouping and athletic competition. The degree to which persons possess general motor ability and motor intelligence is the concern of physical education personnel.

Willgoose (16) notes "that there is a powerful human quality closely tied in with general motor ability and that is will." He also claims that:

> . . .the primary elements of motor performance tend to be related to certain character traits of leadership and popularity. Here we have physical fitness and motor ability, especially during the adolescent period, providing among other things a 'capacity' to understand others. This capacity enhances prestige and leads to greater social acceptance.

Movement

The theme of "movement" is gaining popularity and momentum not only in physical education but in all fields of learning. This certainly is not a new approach in physical education but has taken a back seat to more popular ideas in recent years.

Jewett and Clapp (16) review the movement principle in education.

> It is the original and basic approach recognized as an intricate part of the educational system of the ancient Greeks, Romans, Egyptians and Chinese. This tenet was basic in most programs of physical education until the early twentieth century in the United States, when a series of educational circumstances swung the rudder so abruptly that the movement principle of physical education was neglected and personality and socialization were emphasized. Sargent, Roberts, Hetherington, Wood, Hanna, Hitchcock,

> McCurdy, Ling, Jahn, and hundreds of other leaders in physical education set their sights boldly on the principles of human physiological movement as the basis of man's existence.

Cratty (5) summarizes some of the reasons for this renewed interest in movement.

> During the past twenty years, in particular, there has been renewed interest in the performance of humans in various movement tasks. Impetus has been given to the study of skill by several conditions: The performance requirements of pilots during World War II, the need to understand the functioning of complex machine systems in industry and in the military, and the envolvement of theoretical statements which purport to account for the complexity and variability of perceptual-motor behavior of humans.

Jewett and Clapp (9) say that "movement is life." They define the principles of movement in some of the following tenets. As long as man is alive he must move physiologically in some way. The constant throb of the heart beat and the expansion and contraction of the lungs are examples of biological movement. Communication and interpretation, both verbal and nonverbal, require movement. Nonverbal expressions require greater degrees of movement. Many people can do better than they can articulate. Gross body movements are found in reflection of emotional situations, expressions of personality and depicting a way of life.

Cassidy stated in "Minimum Essentials for Physical Education in 1975," written for Jewett and Clapp (9, p. 311) that:

> Movement is central to learning, to experiencing and expressing, to the very achievement of self-identity and self-security. We should be providing, from infancy on, a wide range of successful movement experiences, aiding the learner to

> understand better his body potentials, his self-potential. The content and method should be directed toward self-assessment, self-acceptance, self-assurance, self-striving for a more effective instrument.

Jewett and Clapp (9) stress the movement principle in education.

> Physical education must concern itself with the basic ingredients of movement and must stand firmly for the study of movement in the total educational pattern of the individual.

Jewett and Clapp (9) say that "the common denominator of physical skills is activity or movement." They recognize that all movement is not skilled but only becomes skilled when it is consciously controlled and efficiently executed. The degree of skill is in direct proportion to the amount of control and the success of execution

Schneiders (11) feels that participation in play activities or organized play reaches its peak during adolescence. He believes that play activities are important for complete development and serve as a temporary escape from the restrictions imposed in the home, school, and society and thus serve to reduce tension.

> Play activities assume an important role in the lives of both children and adolescents. It is a purposive form of activity, promoting gratification of basic needs, and insuring freedom from restraint, obligation, and social pressures. Play is pleasant, it enhances the feeling of well-being. . .

Jacob (25) sees building a sense of confidence through physical education activities which should not be too competitive especially during elementary grades. A proper

appreciation by the individual of his or her own body should have reinforcement through the proper use and proper sense of "what I can do."

Schneiders (11) finalizes the importance of physical activities.

> Play and amusements, and participation in sports, contribute to the development of basic values, ideas, and attitudes. This influence obviously is not distributed equally, but it is hard to imagine any leisure activity that does not have some effect on the maturing personality. All these relationships have been studied by many investigators, and the results show conclusively that leisure-time activities are among the most important determiners of personality growth during adolescence.

Related Goals of Physical Education

Clarke (6) defines the function of the physical educator as one who understands each shild's needs in order to give him adequate guidance and to adapt programs to meet his needs. If these functions are to be accomplished efficiently, measurement is indispensable, for orderly progress cannot be achieved without the guidance that intelligent use of measurement provides.

This leaves many implications for physical education. Not only must we educate for democracy, but we have an obligation to graduate young men and women who are organically sound, physically fit, emotionally stable, and socially well adjusted.

Through understanding the above goals of physical education we see that these are in complete agreement and harmony with the aims of general education.

This study is primarily interested in the two objectives of emotional stability and social adjustment as they interact with physical education.

Cratty (22) emphasizes that the two main goals of physical education are social efficiency and skill development. Clarke (3) believes that learning physical skills is an important element in social adjustment. He also claims that learning these skills "constitutes the difference between the development of social, well-integrated individuals and unsocial, retiring types."

It is interesting to note that one sees these as the two areas for concern while the other looks at these as one dependent upon the other. It can be concluded that upon this interrelationship rests the core to successful physical education programs.

Consideration in testing, therefore, should be given to social traits functioning in physical education whether in or out-of-school situation. Those physical educators who measure in this light will more ably meet the broad social needs of the students.

Too often physical educators become saturated with the idea that physical education classes are a panecea for all social problems existing in schools. It is taken for granted that social development will automatically happen in physical education classes without planning desirable programs to achieve these results. Remaining realistic it must be remembered that participation in physical activities

won't always result in positive and desirable social outcomes.

Clarke (3) sees character development as continually taking place in all of life's activities and that this constitutes an obligation and challenge to physical educators to see that social development is kept in mind through carefully planned programs.

> Social acceptance is an important requisite for satisfactory social adjustment. Lack of social status frequently results in discontent and unhappiness; attainment of status once lacking may produce marked changes in an individual's personality and feeling of well being. Obtaining and maintaining social acceptability is particularly important during adolescence. . .

Significant relationships between physical and motor fitness to peer status, leadership qualities, and personal and social traits have been found verifies Clarke (3).

Since social efficiency involves human relationships, Willgoose (16) feels that "physical education, perhaps more than any other special subject in the curriculum, is purposely organized to deal with the elements of social behavior."

Parallelling this statement Clarke (3) says:

> There is little doubt among educators today that physical education may contribute to social efficiency of school children. Physical education activities are real to the child--they have meaning; they result in action.

Bourne (19) places the values in a broader sense.

> Physical education provides periods of involvement in integrated activity which can lead to the clarification of self-image, the enhancement of self-esteem, the development of self-control, and an

> increased sense of security. In physical education we help our youngsters to obtain a self-image.

From a social point of view there is general agreement among educators that physical education when carried on in a favorable environment can offer significant opportunities for character and social development.

Summary of the Literature

Recapitulation of the related literature directs attention to the importance of positive formation of self-concepts as they relate and are related to by all behavior.

If self-concepts are formulated by and large through the individual's perception of how peers and significant others react to the self, then situations of all learning carry a responsibility to guard against rigid, uniform programs and should strive to individualize learning tasks. Somewhere a balance between perception of values attached to a learning situation and innate ability to achieve these values must be furthered. Through good testing we can locate the extremes.

Physical education is viewed as a dynamic workshop laden with explosive potential to contribute to positive concept of self. Authorities in all fields of education realize the contribution physical education can make to social adjustment and acceptance. It is suggested here that social adjustment and acceptance reflect positive self-concepts.

CHPTER III

METHCDOLOGY

This study was made to determine the relationship between self-concept and motor ability, and at the same time to measure peer evaluation of motor ability since it relates to self-concept determination.

Definition of Terms

Self-concept. This is the individual's appraisal of his worth as he judges himself now.

Motor ability. This is the level to which one has developed his innate capacity to learn motor skills (2).

Selection of Tests

The choice of an appropriate instrument to adequately measure the motor ability for junior high girls resulted in Scott's Test of Motor Ability (13). The criteria used for selecting this test were time and ease of administering and a high degree of reliability and validity.

This test met the general requirements for a good test of motor ability. Both Willgoose (16) and Scott and French (13) emphasize the elements of: flexibility, speed eye hand coordination, strength, agility, reaction time, item variety, and combination of skills as more or less essential to all activities.

Fitts Tennessee Self Concept Scale (24) was highly recommended as one of the outstanding tests for determining self-concept. Fitts (24) says that "a need has continued for a scale which is simple for the subject, widely applicable, well standardized, and multi-dimensional in its description of the self-concept." The Journal of Counseling Psychology (23) reports:

> To a considerable extent Fitts's Scale fulfills this need. It consists of 100 self descriptive statements. . .Has a Likert-type five point endorsement scale, which runs from completely false to completely true. . .The responses are scored in five aspects of self (physical, moral ethical, personal, family, and social) and dynamics of what a person is, how he accepts himself, and how he acts.

The peer selection test was decided in consultation with the advisor of this study.

The tests used were: (1) motor ability test battery including: (a) standing broad jump, (b) basketball throw for distance, (c) wall passes, and (d) 4-second dash; (2) self-concept scale; and (3) peer selection of motor ability.

A description for each of these tests is presented in the Appendix.

Selection of Subjects

All girls (184) in the physical education classes at Chosaning Junior High School were tested for this study. These girls were seventh and eighth graders ranging from twelve to fifteen years of age.

Testing Procedures

The administrator for the battery of motor ability tests was the physical education instructor. In conducting this complete study the author worked very closely with the physical education instructor to insure the highest degree of understanding for administering the tests.

In administering the self-concept test, it was necessary to spend some time establishing a good report with the students so that they would reveal truthful information about themselves. Time was spent explaining that the answers given by them would be seen only by the author. It was further emphasized that there were no incorrect answers but rather answering honestly made it correct for that one individual. It was established that an answer given by one could be completely different from another student's answer, but both would be correct if given honestly.

The privacy of the student was thought essential for honest reactions. Therefore, students were purposely spaced to insure maximum security.

In the explanation preceding the peer group selection, careful emphasis was made that the selections be made on skills and not on the basis of friendships or hostilities.

All tests were given during the physical education class periods. The self-concept test and peer group selection test were given at separate times by the author. All four items of the motor ability battery were given on five consecutive class meetings. The written tests were given

prior to the motor ability tests. These tests spanned a time of five weeks.

Analysis of Tests

The results of the motor ability test and the self-concept test were scaled in T-scores and were computed according to conventional statistical techniques.*

The peer evaluation of motor ability was computed statistically using the mean values of both the motor ability scores and the self-concepts scores of the highly and poorly skilled students.

Junior High Curriculum

No particular philosophy has dictated the role of physical education nor have guidelines been established for a planned physical education program. Lack of continuity in leadership is evidenced by six different teachers during the seven years of the school's existence. The curriculum certainly has been influenced by lack of equipment and general apathy by school administrators. Below is listed the current year's program.

Kickball
Volleyball
Conditioning exercises
Softball
Track--dashes only
Low organizational games

*The raw score to T-score conversion chart is in the Appendix. The self-concept conversion chart and scoring techniques can be obtained from the Bibliography (24).

CHAPTER IV

RESULTS OF THE STUDY

The primary purpose of this study was two fold: (1) to investigate the relationship between self-concept and motor ability, and (2) to study the interrelationship of peer evaluation of motor ability on self-concept determination.

Analysis of Data

Conventional statistical techniques were used in analyzing the data.

The Pearson Product-Movement Coefficient of Correlation was used to determine the correlation between self-concept and motor ability. These correlations are shown in Table I.

A statistically significant correlation at the .01 level of confidence required a correlation of .208 for the total number involved in the study.

In separating the seventh and eighth grade, the seventh grade required a correlation of .254 at the .01 level of confidence to be significant. The eighth grade correlation was not statistically significant at the .01 level of confidence but was significant at the .05 level of confidence.

A t-test of the hypothesis that the coefficient of correlation between two normally distributed variables in

TABLE I

CORRELATION OF SELF-CONCEPT
AND MOTOR ABILITY

Grade Level	N	r
Seventh and Eighth	184	.335*
Seventh	106	.40*
Eighth	78	.21**

*Significant at .01 level of confidence.
**Significant at .05 level of confidence.

a bivariate population is not greater than a specified value was used to determine the significance for this part of the study.

The F-test of the hypothesis that the variances of two normal independent populations are equal was calculated using motor ability scores taken from the ten highest and ten lowest self-concept scores. A .10 level of confidence was accepted. The test proved no significance, and the null hypothesis was accepted that the variances are equal.

Therefore a t-test of the hypothesis that the differences between the means of two normal independent populations is not greater than some specified value when the variances are not known but may be assumed to be equal was calculated. A .01 level of confidence was accepted and the results are given in Table II.

TABLE II

t-TEST OF SIGNIFICANCE BETWEEN MEANS
(T SCORES)

Parameter	Mean	S. D.	t	df	t
Motor Ability	48.5	7.53	2.88	18	4.5*
	43.5	4.95			

*Significant at the .01 level of confidence.
Note: top line are highest self-concepts.
bottom line are lowest self-concepts.

The F-test and the t-test (just explained and with the same levels of confidence) were tested on fifteen self-concept scores taken from the fifteen highest and lowest motor ability scores. The results are given in Table V.

The subjective peer selections of motor ability for those students who were considered highly or poorly skilled were subjected to the same F-test and t-test. These were tests of significance between means of self-concept and motor ability. The results are shown in Table VI. These figures represent the twenty students considered the highest skilled and the twenty students picked as having the poorest skills.

TABLE III

TEN HIGHEST AND LOWEST SELF-CONCEPT SCORES
MATCHED WITH MOTOR ABILITY SCORES
(T SCORES)

High Self-Concept	Motor Ability	Low Self-Concept	Motor Ability
70	51	25	43
68	51	25	52
68	46	26	40
67	43	29	40
66	45	29	48
66	35	29	40
66	56	29	45
65	44	30	51
64	62	31	38
64	52	31	38

TABLE IV

FIFTEEN HIGHEST AND LOWEST MOTOR ABILITY SCORES
MATCHED WITH SELF-CONCEPT SCORES
(T SCORES)

High Motor Ability	Self-Concept	Low Motor Ability	Self-Concept
65	46	29	40
62	64	33	33
61	35	35	66
61	63	35	49
60	36	36	52
57	36	36	39
57	44	36	50
56	66	37	56
56	44	37	39
56	44	38	54
55	35	38	44
55	42	38	46
55	58	38	42
54	62	38	31
54	55	38	31

TABLE V

t-TEST OF SIGNIFICANCE BETWEEN MEANS
(T SCORES)

Parameter	Mean	S. D.	t	df	t
Self-Concept	50.2	10.8	2.76	28	
	43.5	12.0			5.8*

*Significant at .01 level of confidence.
Note: top line taken from highest motor ability scores.
bottom line taken from lowest motor ability scores.

TABLE VI

t-TEST OF SIGNIFICANCE BETWEEN MEANS
(BASED ON PEER SELECTIONS)
(T SCORES)

Parameter	Mean	S. D.	t	df	t
Self-Concept	48.3	10.86	2.71	38	7.4*
	40.8	9.18			
Motor Ability	51.8	6.18	2.71	38	15.6*
	40.1	5.25			

*Significant at .01 level of confidence.
Note: top line denotes highly skilled.
bottom line denotes poorly skilled.

TABLE VII

SELF-CONCEPT AND MOTOR ABILITY SCORES FOR PEER EVALUATIONS OF THE HIGHLY AND POORLY SKILLED (T SCORES)

High Skilled Self-Concept	Motor Ability	Low Skilled Self-Concept	Motor Ability
47	51	34	38
62	54	32	37
48	48	33	44
41	47	33	33
51	48	39	37
66	56	35	40
58	55	42	48
39	54	43	43
68	51	66	35
33	51	52	36
46	65	50	40
64	62	36	41
44	56	32	46
41	52	35	49
36	57	32	50
41	54	48	41
56	42	34	41
39	51	49	35
49	41	51	40
38	41	40	29

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Summary

The purpose of this study was to investigate:

(1) the relationship between self-concept and motor ability, and

(2) peer evaluation of motor ability it relates to self-concept.

One hundred and eighty-four (184) junior high school girls participated in this study. These represented all of the seventh and eighth grade girls in this particular junior high school.

All tests were administered by the junior high physical education teacher and the author.

Self-concept and motor ability raw scores were converted into T-scores. The means were calculated from both test scores on peer selections of motor ability.

The Pearson Product-Moment Correlation Coefficient was used to determine the relationship between the variables of self-concept and motor ability. This correlation was then computed for each grade level.

The F-test and the appropriate t-test were used to determine the diffences between means.

The peer selections were arbitrarily set at twenty by the author. The self-concept and motor ability scores

for the twenty girls who received the most votes by their peers as having the highest and poorest skills were calculated.

The fifteen highest and lowest motor ability scores were matched with their self-concept scores and the latter was calculated for significance between means. The ten highest and lowest self-concept scores were matched with their respective motor ability scores and calculated for significance between means.

Conclusions

The following conclusions were drawn from the statistical analysis of data.

1. There is a significant relationship between self-concept and motor ability at the .01 level of confidence.

2. Students with high self-concepts score higher in motor performance.

3. Students with low self-concepts score lower in motor performance.

4. Students who score high in motor performance have higher positive attitudes toward themselves.

5. Students who score low in motor performance have lower and more negative attitudes toward themselves.

6. Students who are rated high for physical skills by their peers have higher self-concepts and have higher motor abilities.

7. Students who are rated low for poor physical

skills by their peers have lower self-concepts and lower motor abilities.

8. There was a difference between seventh and eighth grade correlations of motor ability and self-concept. Significance for the seventh grade was at the .01 level of confidence and the eighth grade was at the .05 level; however, both were significant.

9. Therefore it is the feeling of this author that the effects of a good physical education program go deeper than the learning of skills. Physical activities when well planned to meet individual needs can and do contribute to the enhancement of the self. Good physical education programs offer one opportunity for students to meet success, build their own self-confidence, stabilize emotional and mental health, and formulate positive attitudes toward themselves. It is readily agreed that the assessment of the individual by her peer group does influence her own judgment of herself.

Recommendations

It is felt that there is a need for further investigation. Some suggestions would be:

1. a larger sample
2. a comparison study between an inferior physical education program and superior one.
3. a comparison study between junior high boys and girls.
4. a comparison study between girls enrolled in physical education classes and girls playing interscholastically.

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APPENDIX

TABLE VIII

RAW DATA FROM SELF-CONCEPT AND MOTOR ABILITY TEST

Subject No. 7th Grade	Self-Concept	Motor Ability Basketball Throw	St. Broad Jump	4 sec. Dash	Wall Passes
1	370	33	4-7	24	5
2	370	40	5-8	17	7
3	330	32	3-8	19	7
4	279	20	4-7	22	7
5	369	35	5-4	18	8
6	314	45	5-0	24	8
7	377	35	4-8	20	8
8	281	39	4-6	24	7
9	333	29	4-8	22	6
10	390	37	5-0	21	7
11	342	33	4-8	19	7
12	344	33	4-4	20	7
13	317	20	3-10	17	6
14	320	40	5-4	24	9
15	294	35	4-0	19	8
16	314	30	5-0	29	6
17	400	32	5-2	22	8
18	353	31	3-2	18	8
19	390	39	3-4	18	8
20	394	39	6-4	24	10
21	394	23	4-2	19	6
22	294	42	5-0	23	7
23	337	30	5-2	24	8
24	364	36	4-6	21	9
25	323	39	4-2	22	10
26	340	34	4-8	22	7
27	323	43	6-2	25	9
28	330	30	5-2	21	8
29	400	30	5-10	25	9
30	400	35	5-3	24	9
31	356	34	5-4	22	8
32	350	33	4-10	24	8
33	326	34	4-7	21	8
34	290	27	3-6	19	7
35	290	27	3-8	17	7
36	320	30	5-2	23	8
37	285	30	4-4	17	7
38	336	30	4-0	19	7
39	317	30	5-8	18	7
40	378	34	5-4	25	8
41	290	45	4-10	19	9
42	304	30	4-0	19	10
43	314	28	3-11	19	9
44	323	34	5-4	21	7
45	290	29	4-10	21	7
46	270	28	4-2	20	8
47	314	30	3-4	19	8
48	293	45	4-0	22	10
49	320	45	5-8	21	10
50	342	37	4-8	23	9
51	325	30	4-7	22	9
52	333	29	4-6	22	9
53	377	25	4-4	22	9
54	280	30	4-0	19	7
55	353	39	4-6	21	8
56	320	28	4-2	22	6
57	323	28	4-4	22	4
58	396	31	4-4	21	9
59	317	30	5-2	22	7
60	394	30	4-0	23	9
61	390	34	4-6	24	9
62	337	36	4-10	21	9
63	346	33	4-6	22	9
64	323	40	5-4	22	9
65	272	39	5-6	21	9
66	369	40	4-10	23	7
67	314	27	4-2	22	7
68	346	27	4-2	21	7
69	343	30	3-8	18	7
70	340	33	4-0	22	7
71	390	27	4-4	20	7
72	314	45	4-8	21	7
73	370	28	3-8	20	7
74	280	39	4-6	23	7
75	280	39	4-6	23	8
76	335	32	4-0	22	8
77	323	41	5-4	24	9
78	330	40	4-0	25	10
79	320	30	4-10	20	7
80	334	36	3-10	21	7
81	323	33	4-8	21	7
82	300	36	5-2	22	8
83	320	30	4-10	20	8
84	323	32	4-10	20	8
85	334	36	4-10	21	8
86	337	36	5-8	23	9
87	356	41	5-3	22	9
88	344	33	4-6	22	9
89	346	30	4-10	24	9
90	330	33	6-0	25	9
91	330	42	4-10	24	9
92	330	37	4-10	22	9
93	346	28	4-8	22	8
94	330	42	4-6	22	9
95	320	36	4-10	22	9
96	321	39	4-8	23	9
97	340	28	3-8	19	7
98	312	36	5-0	22	9
99	330	36	4-8	22	9
100	317	36	5-4	23	9
101	341	33	4-6	23	9
102	320	33	5-0	21	10
103	330	27	5-4	23	8
104	330	39	4-4	23	8
105	330	39	4-4	23	8
106	284	36	4-4	22	8

Subject No. 8th Grade	Self-Concept	Motor Ability Basketball Throw	St. Broad Jump	4 sec. Dash	Wall Passes
107	284	48	5-9	21	10
108	295	46	5-4	21	8
109	335	34	4-2	20	6
110	275	45	4-11	22	10
111	310	30	4-2	21	8
112	285	32	5-0	20	6
113	289	35	5-2	24	9
114	279	34	5-2	23	7
115	364	33	5-0	25	7
116	294	34	5-0	22	10
117	329	31	4-10	18	8
118	359	35	4-10	22	9
119	350	30	3-8	22	9
120	290	41	5-0	22	11
121	293	39	4-9	22	7
122	333	39	5-6	24	8
123	320	39	5-6	25	6
124	289	39	5-4	22	8
125	250	29	5-0	22	8
126	350	31	3-10	20	9
127	317	37	5-4	23	8
128	326	41	5-9	24	7
129	355	32	5-8	22	8
130	330	39	5-11	25	11
131	339	44	5-2	24	9
132	303	42	5-11	25	10
133	369	39	5-6	24	9
134	313	37	5-10	23	8

Subject No. 8th Grade	Self-Concept	Motor Ability Basketball Throw	St. Broad Jump	4 sec. Dash	Wall Passes
135	313	30	4-7	23	7
136	333	45	5-5	25	13
137	309	34	4-4	21	8
138	378	30	3-5	23	10
139	333	39	5-0	23	7
140	317	39	5-3	23	10
141	364	32	4-1	22	9
142	373	39	5-7	24	11
143	319	39	4-11	23	10
144	340	47	6-[illegible]	24	12
145	363	41	4-4	21	10
146	314	35	5-3	25	11
147	264	30	4-11	22	8
148	335	55	7-4	25	10
149	338	25	5-8	24	11
150	354	3[illegible]	5-4	21	7
151	277	28	4-[illegible]	22	6
152	316	34	5-0	22	8
153	340	37	4-[illegible]	22	5
154	333	45	5-2	22	8
155	321	45	5-3	22	9
156	335	45	5-[illegible]	25	8
157	310	58	5-[illegible]	24	11
158	285	43	5-1[illegible]	21	8
159	333	41	5-4	23	8
160	331	30	6-2	24	11
161	340	30	5-4	23	9
162	318	43	5-[illegible]	21	7

Subject No. 8th Grade	Self-Concept	Motor Ability Basketball Throw	St. Broad Jump	4 sec. Dash	Wall Passes
163	317	33	5-2	24	[illegible]
164	341	39	5-4	24	[illegible]
165	32[illegible]	35	[illegible]	23	[illegible]
166	35[illegible]	41	[illegible]	23	[illegible]
167	334	34	[illegible]	23	[illegible]
168	334	31	[illegible]	23	[illegible]
169	342	34	[illegible]	23	[illegible]
170	3[illegible]	47	5-[illegible]	21	[illegible]
171	34[illegible]	23	[illegible]	21	[illegible]
172	3[illegible]	[illegible]	4-3	23	[illegible]
173	22[illegible]	35	[illegible]	23	[illegible]
174	34[illegible]	38	[illegible]	23	[illegible]
175	34[illegible]	33	[illegible]	23	[illegible]
176	36[illegible]	43	[illegible]	23	[illegible]
177	3[illegible]	[illegible]	4-4	24	[illegible]
178	3[illegible]	[illegible]	4-[illegible]	24	[illegible]
179	323	31	5-5	24	[illegible]
180	2[illegible]	42	4-9	21	[illegible]
181	3[illegible]	24	4-8	[illegible]	[illegible]
182	3[illegible]	42	[illegible]	[illegible]	[illegible]
183	33[illegible]	32	4-4	[illegible]	[illegible]
184	2[illegible]	45	5-5	[illegible]	[illegible]

TABLE X

T SCALE FOR MOTOR ABILITY TESTS FOR JUNIOR HIGH GIRLS (13)

T-Score	Basketball Throw (feet)	Wall Passes	4 Second Dash (yards)	Standing Brd. Jump (inches)
80	71	16		
79				96
78				
77	68	15	27	94
76	66			
75	65			
74	64			92
73	63	14		
72	61			
71	59		26	90
70	58			88
69	54	13		
68	52		25	86
67	51			
66	50			
65	49			
64	48		24	84
63	47	12		
62	46			82
61				80
60	45		23	
59	44			78
58	43	11		
57	42			76
56	41			
55	40		22	74
54				
53	39			
52		10		72
51	37			
50	36		21	
49	35			70
48				68
47	34			66
46	33	9		
45	32		20	64
44	31			
43				62
42	30			
41	29	8	19	60
40	28			
39				58
38	27			56
37		7		54
36	26			
35			18	52
34	25			50
33				
32	24			47
31	23	6		
30				44
29	22		17	
28				
27	21			
26				40
25	20	5		
24				
23	19			36
22			15	
21	16			
20		4		

SCOTT'S TEST OF MOTOR ABILITY (13)

BASKETBALL THROW FOR DISTANCE

Description

1. The subject starts anywhere behind the starting line.
2. The subject may throw any way she wishes.
3. Three consecutive throws are given.
4. The score is the distance from the throwing line to the spot where the ball touches the floor.
5. Only the longest throw counts.
6. Do not step on or across the line when throwing.

Suggestions

1. Explain carefully but do not demonstrate.
2. Answer questions about the test, except on throwing technique.
3. The throw may be of any type providing the feet are behind the line.

Equipment

1. Basket ball.
2. Measuring device.

STANDING BROAD JUMP

Description

1. The subject stands on take-off board with toes curled over the edge of the board.
2. The take-off is from both feet simultaneously.
3. The jump is as far forward as possible.
4. The score is the distance from the edge of the take-off board to the nearest heel (or to the nearest part of the body if the balance is lost).
5. The best of three trials will be counted.

Suggestions

1. Preliminary swinging of arms and flexing of knees are permissible providing the feet are kept in place on the board until the actual take-off.
2. Be sure the subject understands what is to be done.
3. If a take-off board is not feasible, jumping may be done from the mat if the mat is heavy enough s so it will not slip.*

Equipment

1. Beat board.
2. Mat.
3. Measuring device.

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*For this study a mat was used.

DASH (4 seconds)

Description

1. The subject may start in any position wished with toes behind a starting line. On the signal "Ready, Go," the subject runs as fast as possible and keeps going until the whistle blows.

2. The score is the distance you have run between the starting signal and the whistle .

Suggestions

1. One trial is sufficient. (If there is outside interference then a second trial would be permitted.

2. It is best to use two persons, a timer and a judge to determine the distance achieved at the time of the whistle.

Equipment

1. Time watch.

WALL PASS

Description

1. The subject stands behind a restraining line, facing a wall, and throws a ball into an area eight feet square.

2. The line is nine feet from the wall and parallel to it.

3. On a signal "Ready, Go," the subject throws the ball against the wall, catches the rebound, and repeats this action again as quickly as possible. This continues until she is stopped by the timer.

4. The subject must remain behind the line when performing.

5. The throw may be of any type.

6. The score is the number of hits during a 15 second time.

7. One trial is given.

Suggestions

1. Let each subject have three or four practice throws.

2. If the ball drops between the wall and the line, it may be necessary for the player to cross the line to recover the ball. This is permissible, but the subject must then cross behind the line for the next throw.

3. A second trial may be given if the ball gets out of control and time is lost recovering it.

4. If time is permissible, two trials could be given.

Equipment

1. Time watch.

2. Basketball.

FITTS TENNESSEE SELF-CONCEPT SCALE

		Item No.
1.	I have a healthy body	1
3.	I am an attractive person	3
5.	I consider myself a sloppy person	5
19.	I am a decent sort of person	19
21.	I am an honest person	21
23.	I am a bad person	23
37.	I am a cheerful person	37
39.	I am a calm and easy going person	39
41.	I am a nobody	41
55.	I have a family that would always help me in any kind of trouble	55
57.	I am a member of a happy family	57
59.	My friends have no confidence in me	59
73.	I am a friendly person	73
75.	I am popular with boys	75
77.	I am not interested in what other people do . . .	77
91.	I do not always tell the truth	91
93.	I get angry sometimes	93

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

		Item No.
2.	I like to look nice and neat all the time	2
4.	I am full of aches and pains	4
6.	I am a sick person	6
20.	I am a religious person	20
22.	I am a moral failure	22
24.	I am a morally weak person	24
38.	I have a lot of self-control	38
40.	I am a hateful person	40
42.	I am losing my mind	42
56.	I am an important person to my friends and family .	56
58.	I am not loved by my family	58
60.	I feel that my family doesn't trust me	60
74.	I am popular with girls	74
76.	I am mad at the whole world	76
78.	I am hard to be friendly with	78
92.	Once in a while I think of things too bad to talk about	92
94.	Sometimes, when I am not feeling well, I am cross .	94

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

		Item No.
7.	I am neither too fat nor too thin	7
9.	I like my looks just the way they are	9
11.	I would like to change some parts of my body . . .	11
25.	I am satisfied with my moral behavior	25
27.	I am satisfied with my relationship to God	27
29.	I ought to go to church more	29
43.	I am satisfied to be just what I am	43
45.	I am just as nice as I should be	45
47.	I despise myself	47
61.	I am satisfied with my family relationships	61
63.	I understand my family as well as I should	63
65.	I should trust my family more	65
79.	I am as sociable as I want to be	79
81.	I try to please others, but I don't overdo it . . .	81
83.	I am no good at all from a social standpoint . . .	83
95.	I do not like everyone I know	95
97.	Once in a while, I laugh at a dirty joke	97

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

		Item No.
8.	I am neither too tall nor too short	8
10.	I don't feel as well as I should	10
12.	I should have more sex appeal	12
26.	I am as religious as I want to be	26
28.	I wish I could be more trustworthy	28
30.	I shouldn't tell so many lies	30
44.	I am as smart as I want to be	44
46.	I am not the person I would like to be	46
48.	I wish I didn't give up as easily as I do	48
62.	I treat my parents as well as I should (Use past tense if parents are not living).	62
64.	I am too sensitive to things my family say	64
66.	I should love my family more	66
80.	I am satisfied with the way I treat other people .	80
82.	I should be more polite to others	82
84.	I ought to get along better with other people . . .	84
96.	I gossip a little at times	96
98.	At times I feel like swearing	98

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

		Item No.
13.	I take good care of myself physically	13
15.	I try to be careful about my appearance	15
17.	I often act like I am "all thumbs"	17
31.	I am true to my religion in my everyday life . . .	31
33.	I try to change when I know I'm doing things that are wrong	33
35.	I sometimes do very bad things	35
49.	I can always take care of myself in any situation .	49
51.	I take the blame for things without getting mad . .	51
53.	I do things without thinking about them first . . .	53
67.	I try to play fair with my friends and family . . .	67
69.	I take a real interest in my family	69
71.	I give in to my parents (Use past tense if parents are not living)	71
85.	I try to understand the other fellow's point of view	85
87.	I get along well with other people	87
89.	I do not forgive others easily	89
99.	I would rather win than lose in a game	99

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

		Item No.
14.	I feel good most of the time	14
16.	I do poorly in sports and games	16
18.	I am a poor sleeper	18
32.	I do what is right most of the time	32
34.	I sometimes use unfair means to get ahead	34
36.	I have trouble doing the things that are right . .	36
50.	I solve my problems quite easily	50
52.	I change my mind a lot	52
54.	I try to run away from my problems	54
68.	I do my share of work at home	68
70.	I quarrel with my family	70
72.	I do not act like my family thinks I should	72
86.	I see good points in all the people I meet	86
88.	I do not feel at ease with other people	88
90.	I find it hard to talk with strangers	90
100.	Once in a while I put off until tomorrow what I ought to do today	100

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

PEER SELECTION TEST FOR

HIGHLY SKILLED

If you and five other members from your class could make up a team and compete for a wonderful prize, whom would you select to be on your team. If you <u>really</u> wanted to win, who in your class could help you the most?

1. _____
2. _____
3. _____
4. _____
5. _____

PEER SELECTION TEST FOR

POORLY SKILLED

If you and five other members from your class could make up a team and compete for a wonderful prize, whom would you <u>least</u> want on your team? These members would help you the least.

1. _____
2. _____
3. _____
4. _____
5. _____