1962

The Effects of Football Participation on Personality Adjustment in Elementary School Boys

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THE EFFECTS OF FOOTBALL PARTICIPATION ON PERSONALITY ADJUSTMENT IN ELEMENTARY SCHOOL BOYS

A Thesis

Presented to

the Graduate Faculty

Central Washington State College

In Partial Fulfillment

of the Requirements for the Degree

Master of Education

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by

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August 1962

APPROVED FOR THE GRADUATE FACULTY

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ACKNOWLEDGEMENTS

I wish to acknowledge the advice and understanding given by Dr. Mary Bowman, Committee Chairman; Dr. Evert Irish and Dr. Donald Murphy, members of my Committee.

A deep appreciation is also due my wife for assistance and encouragement during the writing of this paper.

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS

The development of personality among young people has been a concern of teachers and parents for many years. Any activity that will help develop a well-rounded personality is deemed good. Any activity that is destructive to personality is deemed bad. However, an activity considered highly beneficial in personality development by one faction or school of thought may be criticized by an opposing faction as not only non-beneficial, but even detrimental. Often there are two sides to a problem with little evidence to support either. The contribution of football to personality and social development is one of these controversial questions.

I. THE PROBLEM

Statement of the problem. This study tried to determine the effects of participation in a football program on the personality adjustment of boys aged ten, eleven, and twelve who live in Yakima and neighboring areas.

Sub-problem. To carry out the purpose of the study it was necessary to select an appropriate device to measure personality adjustment.

Importance of the study. Personality development has

frequently been stressed as one of the important aims of education. Carlton R. Meyers expressed the opinion that physical activities play an effective part in helping fulfill this aim, but in so doing mentions the lack of proof:

> "Physical education activities afford a rich opportunity for desirable personality development. Allegations have been advanced concerning the value of various sport activities, but confirmation or refutation by careful study is wanting (23:411)."

This study attempted to determine if any personality adjustment is brought about by a well-organized program of competitive physical activity. Some people closely responsible for the total development of a child feel that competition, especially in body contact sports, is not beneficial to a child's emotional and social development. Several examples of this attitude will be noted in the review of literature.

Still, elementary schools continue to feel pressure to adopt the characteristics of high school and college interscholastic sports programs, although most recent developments along such lines have taken place outside of the school system. While it is true that local educators, from principal and coach to school board members, sometimes are leaders in such movements as Little League, Pop Warner Football, Biddy Basketball, and Grid Kids, the school systems themselves rarely sponsor these programs as part of the school's extracurricular activities. As a result, the recent development of highly organized competitive

athletics for elementary school age children has been sponsored largely by private, independent groups not connected with the schools or public recreation department.

The value of such programs to the emotional and physical health development of the participants has been the point of controversy by laymen as well as experts since these programs were started.

II. DEFINITION OF TERMS

Personality adjustment. This refers to a portion of a total personality as measured by (1) Personal inferiority; (2) Social maladjustment; (3) Family maladjustment; and (4) Day dreaming using Roger's Test of Personality Adjustment.

Grid Kids. The Yakima Valley Grid Kids, Inc., from which the subjects of this paper were taken, is a community tackle football organization for boys aged ten, eleven, and twelve supported completely by donations. This includes all uniforms, footballs, insurance on each boy, and the game officials.

III. ORGANIZATION OF REMAINDER OF STUDY

This study has been arranged in a logical sequence, starting with a comprehensive survey of the history and recent status of the problem as revealed in the related

literature. The ideas, beliefs and findings of many authors are discussed in Chapter II. They have been condensed and divided in two sections, the first on attitudes toward competition and the effects of competition on emotional development of elementary aged school children and the second on research done on personality and competition in athletics. Chapter III presents a detailed plan of procedure, beginning with obtaining permission from the Yakima Valley Grid Kids, Inc., to do the study and continuing through the sources and treatment of data.

The data are presented in Chapter IV by means of tables and appropriate explanations.

The summary is presented in Chapter V and conclusions are drawn.

CHAPTER II

REVIEW OF LITERATURE

Within the past twenty years interest in highly competitive athletics for boys twelve and under has greatly increased. Some of the reasons for this are the enormous growth in the number of both public and recreation facilities, more trained leaders in recreation and physical education departments of the public schools, and the emphasis through radio, press, and television on professional, semi-professional, and amateur stars and champions.

Concern over this growth of competition for boys in the elementary schools and its effect on the physical, emotional, and social development of the participants has also increased.

Research done by a few who were concerned about or interested in the effect of participation in competitive athletics on elementary aged boys was limited to the physical development of the participants (27:2; 8:2-4; 32:758-65; 20:398). Little research has been done on the sociological and emotional make-up of the boys participating in a highly competitive program. The literature reviewed was limited to reports of opinions and recommendations about competitive athletics for children and the emotional and social development of the elementary boys or girls participating in competitive situations.

I. ATTITUDES TOWARD COMPETITION AND THE EFFECTS OF COMPETITION ON EMOTIONAL DEVELOPMENT OF ELEMENTARY SCHOOL CHILDREN

A study has expressed the opposition of educators to highly organized competitive sports for elementary school children. The American Association for Health, Physical Education, and Recreation; the Department of Elementary School Principals of the National Education Association; the Society of State Directors of Health, Physical Education and Recreation; and the National Council of State Consultants in Elementary Education joined in a study of athletic competition for children of elementary and junior high school age, completed in April, 1952. After a survey of doctors and educators, the committee representing these groups concluded that first priority should be given to:

> A broad and varied program of voluntary informal recreation for children of all ages and an interesting extensive program of intramural activities for boys and girls in upper elementary grades and above . . . within the individual school or neighborhood recreation center (24:21-22).

The committee itemized high pressure elements of an interscholastic pattern which should be avoided. These include frequent contests, long seasons, little bowl games, or other procedures that cause pressures or may make undue physical demands on young boys or girls, or an over-emphasis by means of newspapers, radio, television, or similar media (24:21-22).

Five principles adopted by the National Conference on Program Planning in Games and Sports for Boys and Girls in Elementary School Age in May of 1953 substantiated the basic concepts of the joint study. In attendance at this meeting in Washington, D. C., were forty-four people representing twenty-seven organizations. There were physicians, physiologists, psychologists, educators, recreation leaders, and people interested in special sports.

The principles as drawn up by the participants of this conference are:

1. Competition is inherent in the growth and development of the child and, depending upon a variety of factors, will be harmful or beneficial to the individual.

2. Programs of games and sports should be based on the developmental level of children. Boxing, Tackle football, ice hockey, and other similar body contact sports should not be included in any competitive program for children twelve and under.

3. These programs should provide a variety of activities for all children throughout the year.

4. Adequate competitive programs organized on neighborhood and community levels will meet the needs of these children. State regional, and national tournaments; bowl, charity, and exhibition games are not recommended.

5. Education and recreation authorities and other community youth serving agencies have a definite responsibility to develop adequate neighborhood and community programs of games and sports and to provide competent leadership for them (22:20-2).

In addition to the recommendations of the two committees, there have been studies of the Little League program because it exposes the greatest number of elementary aged

boys to the intensive competition that leaders in many fields claim is detrimental to the boy's mental and social development.

Howard Holman, director of recreation in Fresno, California, secured responses to a questionnaire from the parents of 152 of the 207 boys who participated in the Little League program in 1951. The parents gave almost unanimous support to the program. They repudiated the claims that participation was physically, psychologically, emotionally, or socially harmful. One hundred per cent of the parents wanted their boys to continue participation the following year. The Fresno County Medical Society surveyed its membership and reported no doctor in the area found any injury--physical or psychological--directly or indirectly attributable to Little League play (14:6).

A further review of the data available regarding Little Leaguers shows much controversy.

Sports Illustrated magazine brought together several authorities, both pro and con. Following are some of their views. The substance of the case against the Little League was summed up by Guy Bushby, an official of the Los Angeles Recreation and Parks Commission:

> Practically all the psychologists and child welfare specialists, plus the California Association for Health, Physical Education and Recreation and all persons dealing with child care feel that the type of intensive competition fostered by Little League baseball is not to the best interests of the child twelve years and under(28:55).

Scientific studies to determine the effects of competitive pressure have given the League more concrete basis for answering critics. At the University of California, Dr. Elvera Skubic conducted a study of 206 boys. Of these 75 were Little Leaguers, 51 were members of middle league teams, (aged 12 to 15) and 80 were nonplayers. A skin galvonemeter was used to determine the extent of emotional excitement in certain situations. All the boys were tested in softball physical education classes and the league players in their baseball games as well. Dr. Skubic concluded that:

> League players tended to show less emotionality at rest than nonplayers. . .at most ages. Boys showed more skin responses after physical education competition than they did after league competition. It appears that the boys who display best baseball techniques, play the most intelligent game, have emotional stability and get along best in a group are the ones who are chosen to play competitive baseball (28:55).

While markedly favorable to Little League in general, the Skubic report pointed out that a substantial minority of the players failed to eat normal-sized meals after games and that the sleep of a few was disturbed. Dr. Skubic was concerned that a number of players were distressed over their inability to break into the lineup as often as they desired and that a sizable number of finger and arm injuries occurred among Little Leaguers. Most of these injuries, however, were minor cuts, bruises, and sprains (28: 55-56).

Criteria to judge how the general public feels concerning the participation in intensive competition for elementary aged boys have been lacking. There are as many differing opinions concerning this topic as there are speakers and writers in the field. As has been indicated by the controversies of Little League, one reason for this is the lack of accurate information available. Phebe Martha Scott of Bradley University has attempted to discover what various groups think or feel about athletic competition for the elementary grades. By use of an attitude scale, she compared the attitudes of three selected populations--parents, teachers, and administrators--toward intensive competition in team games at the elementary school level. She assumed these populations are those influencing the conduct of school athletics.

On analysis of the survey, Scott found the following facts:

1. A majority of all three populations marking the scale tended to be favorable in attitude toward intensive competition at the elementary school level.

2. The wide range of scores, (-73, +74 out of a possible range of -79, +79) indicated wide differences of opinions on this question. This difference is more apparent among teachers and administrators than among parents.

3. The parents were most favorable toward intensive competition at the elementary school level and the administrators were the least favorable.

4. The men in this study indicated more favorable attitudes toward intensive competition than did the women.

5. Individuals in this study who have had experience with competition expressed greater favorability toward it than those with no experience.

6. There is some agreement between attitudes of administrators and parent-teacher groups in the same city.

7. No definite geographic differences in the distribution of attitudes were discovered in cities or in the states included in this study (30:356-57)

As an implication for physical education, Scott felt this study indicates that:

> The program of intensive athletic competition at the elementary level has the acceptance, if not the wholehearted approval, of most of the parents and teachers and administrators in the schools included in the study. On the other hand, a minority in all three populations is opposed to intensive competition. The scores on the scale, although indicating favorability, do not necessarily indicate a high degree of favorability. A vigorous public relations and education program could conceivable bring forth encouraging results in changing or amending present attitudes (30:357).

In evaluating Scott's research, David Segal of the U. S. Office of Education commented:

> In any sampling study of opinions or attitudes where the potential participants are asked whether or not they wish to co-operate, and the nature of the study is revealed, the group which becomes the basis for the study is already biased. This is because those who participate tend to be those who feel strongly about the subject.
>
> The .606 correlation coefficient between the scores the administrators made and the scores of those they asked to participate which was dismissed by Scott as not being high enough to mean anything, actually would indicate the superintendent picked these teachers, parents, and co-workers only because they were sympathetic to his viewpoint (31:486).

Clearly, with so many interlocking situations involving competition for elementary school aged boys, no one

study or research project will produce non-controversial evidence that Little League, Pop Warner, Grid Kids, or any of their home-grown counterparts are either overwhelmingly "good or bad." The relationship of the child of twelve and under to highly organized baseball, football, and basketball competition is extremely complex. Emotional and sociological factors need to be studied and evaluated.

Voltmer and Esslinger (35:24,114) formally define personality as the "sum total of an individual's responses to the social situations in which he finds himself." G. B. Watson aptly illustrates this concept of personality when he says:

> In a well-organized team changes in one member may influence the feelings, activities, and adjustments of every other member. Interacting is the main thing we do. We are interacting all the time physiologically within our bodies and socially within our environments. The characteristic processes of interaction make up the personality. The personality may be changed by readjustment within the individual organism, or more readily and more commonly, by changing the social situation with which the individual is interacting (36:408).

It appears then that one cannot teach physical education activities without, at one time or another, having influenced the personality adjustment of those he has taught.

Speaking to a group of women physical education teachers, Watson pointed out the needs of girls participating in athletics. The needs he discussed were "(1)

Health and strength; (2) zest and excitement; (3) comradeship and affection" (36:409). Watson summarized his remarks by saying: "The Athletic program for any girl or woman should vary depending upon what is important in her life for her to get out of that program" (36:409). The same, it would seem, would hold true for a boy's athletic program.

C. L. Lowman ties together the emotional development of both boys and girls and the possible outcome of this development if not given an opportunity to develop properly during the adolescent period.

> The adolescent period is the time of most rapid growth, the halfway period between immaturity and maturity, during which the stresses and strains, both physical and emotional, of activities injudiciously imposed and undertaken may affect the life-long health of the individual child and, in the aggregate, the health of the nation (21:635).

Lowman indicates health may be affected if stresses and strains are unwisely imposed on the adolescent. It would seem reasonable, then, that the medical profession would have a point of view on competitive athletics for elementary aged boys and the possible implications it would have emotionally as well as physically.

George Maksim, M.D., a practicing pediatrician and assistant clinical professor of pediatrics at the George Washington University School of Medicine, has this to say about football as a competitive sport:

Many experts believe in fact, that tackle football

has no place whatever in a sports program for boys under thirteen. Most of these boys have not yet acquired the bone and joint structure or muscular coordination necessary for such a sport. It has been shown that for them the risk of injury is from five to ten times higher than for high school boys.

True, overzealous enthusiasts will protest that safeguards and protective measures are always used with younger boys, even to the presence of a physician. Still no one can deny that many more injuries occur at this age. And the real tragedy is that the severity of some injuries may not be fully revealed until later on, often spoiling what might have been an excellent high school or collegiate career.

Maksim concludes:

> To sum up, there is general agreement that boys and girls under thirteen do need competitive sports programs. But in planning them we must be sure to recognize the physical and emotional limitations of these youngsters and the variations in their abilities. Furthermore we must remember that our purpose is not to help them become champions but to help them become healthy, well-integrated adults (22:20-22).

The Committee on School Health of the American Academy of Pediatrics has summarized its study on emotional aspects of sports competition for boys twelve years of age and under with the following comments:

> All growing children need some regular exercise. This should be a satisfying experience, not a routine chore imposed upon them by unimaginative adult leadership. Too often, however, a satisfying experience is denied children because they fail to "make the team." This may lead to the development of unwholesome attitudes toward both competition and athletics. Other children may be so highly motivated by the prestige of "wearing the uniform" or "winning the game" that their scale of values becomes warped in the process. All children need a sense of belonging, of being wanted, and their acceptance by playmates or adults should not be dependent solely upon success in competitive athletics.

Athletic competition among children produces strong emotional reactions in adults--parents, teachers, leaders, coaches, and even spectators. These reactions in the adults such as undue stress on "winning the game," undue adulation of the skilled athlete, coercion of the child beyond his ability or interest, all of these may be reflected in the children.

Physicians and educators should be interested in the growth and development, physically and emotionally, of all children. They should help children learn to play for the fun of playing. At the elementary school level programs of physical education should contain many non-competitive, non-athletic activities such as games, stunts, hiking, nature study, etc., as well as team sports in which all children participate. The adult may then experience pride and satisfaction not only in the children's achievements, but in his own participation in and observation of their over-all physical, emotional, and social development.

The emotional and social needs of those children who for any reason are unable to participate in competitive athletics may often be met through opportunities for activities associated with sports programs.

Underlying emotional difficulties of various kinds may account for failure of a child to participate willingly in group activities or to gain satisfaction from any sport. After recognition of these emotional problems further medical, social or other studies may be necessary (6:6-7).

Donald S. Dukelow, M.D., Consultant in Health and Physical Fitness, Bureau of Health Education, American Medical Association, in addressing the Advisory Council of the Joint Staff Committee, in Salem, Oregon, in February of 1956 used as his topic "Competitive Athletics and Schools."

In his speech Dr. Dukelow brought out many ways competitive athletics may influence emotional development of boys fifteen and younger who participate in such a

program.

He stated: "When a game is played by a few rather than by the whole team, a loss concentrates the blame and the emotional trauma on the few" (7:3).

Dr. Dukelow agrees in essence with Lowman's definition of the adolescent period as "The Vulnerable Age" (14:635):

> Children in the sixth to the ninth grade, roughly eleven to fifteen years of age, are undergoing emotional experiences in adjusting to a newly discovered world and to their new bodies that are at least as extensive as the physical changes associated with maturation. . .As a rule, children at this level are not sufficiently mature to bear the load of either winning or losing when the reputation of the entire school, their entire community, sometimes even the state, depends on what happens in a few minutes of play (7:3-4).

Discussing further emotional development and the effects competition has on it, Dr. Dukelow quoted some concepts brought forth by a study group (during the Fifth National Conference on Physicians and Schools) that discussed the "Emotional Aspects of Athletics for Children and Youth." The thinking of this National Conference group, as reported by Dukelow, was:

> "The most satisfactory competition results when participants within opposing groups approximate each other in height, weight, age and skill. Emotional growth is influenced favorably when the child has an opportunity to experience success and the resulting feelings of pride and accomplishment. Such successes should be within reasonable balance with inevitable failures. When programs are such that it is difficult for a child to gain a fair degree of success, unfavorable emotional responses may occur. Undue pressures upon children to achieve success, growing out of goal-setting parents, educators, recreation leaders or adult spectators can

> produce emotional instability among children. The motivations of children need to be examined in terms of their desire to gain acceptance by their peers. The desire to please adults may be equally strong. Both can be valuable motivating forces, but when they lead to the setting of unattainable goals, they can induce emotional trauma" (7:4).

This statement supports the resolutions adopted by the Physical Education Division of the American Association for Health, Physical Education, and Recreation at their 1947 national convention in Seattle. The resolution relating to interscholastic competition on the elementary school level read:

> Whereas, elementary school boys and girls are emotionally immature;
>
> Whereas, activity for all is the desired standard rather than activity for the few;
>
> Whereas, the interests of boys and girls is in playing the game and not in playing other schools unless artificially stimulated to do so;
>
> Whereas, small schools may not be able to have satisfactory competition within their own small group; and
>
> Whereas, a play or sports-day type of program broadens the horizons:
>
> We, therefore, recommend: That activity for all be stressed in grades one through eight in the elementary school physical education program; that a strong intramural program be developed for grades five through eight; that interschool competition be considered only as a natural outgrowth of a full intramural program; That we go on record as definitely opposed to interscholastic competition for elementary boys and girls (25:432).

The extent of interest in this particular area of competitive athletics has been indicated by the recommendations made by various organizations, agencies, and

recognized leaders in the field of education and medicine. These organizations have passed resolutions condemming the elementary school competitive athletic programs on a philosophy based essentially upon the following considerations, as Easlinger pointed out in reviewing the research of competitive athletics and the effect of such on elementary school children:

> (1) It is educationally indefensible to devote a preponderant share of public tax funds to a small select group. The time, money, equipment, facilities and personnel of our schools must be devoted to the best interests of all children.
>
> (2) It is contrary to our educational philosophy to specialize intensively on one activity for children of the elementary school ages. Broad participation in a variety of sports is recommended.
>
> (3) Intensive interschool athletics are unduly disruptive in the elementary schools. These activities are over emphasized and they divert the time and attention of the children from other worthwhile activities.
>
> (4) Intensive highly competitive athletics are physically, psychologically, and emotionally harmful to children of elementary school ages (3:1).

Esslinger pointed out that little research has been done on the personality development of elementary aged boys (8:1). This writer found most of the work has been on men attending college. These studies are cited here because of the dearth of research on the pre-pubescent boys.

II. RESEARCH ON PERSONALITY AND ATHLETICS

W. R. Johnson and D. C. Hutton (15:49-53) conducted a study to determine the "Effects of a Combative Sport upon Personality Dynamics as Measured by a Projective Test." Their interpretation of the House-Tree-Person Test of personality revealed several group tendencies from condition to condition of the eight college wrestlers tested: (1) before a wrestling season; (2) four to five hours before the first intercollegiate match of the season; and (3) the morning after the competition. Outstanding were:

> Decrement of functioning intelligence, increased aggressive feelings, and increased neurotic signs in the match condition; and a return to approximately the status of condition I (normal condition) except for considerably less aggressive feelings in condition III (post-match).
>
> The subjects experienced something of a cathartic effect whether or not they won. Findings in condition II (pre-match) seemed interesting in that they suggested the extent and nature of personality disturbance referred to as "general constriction of personality," by the clinician involved, in anticipating a combative (but relatively safe) sport.

Johnson and Hutton, along with G. B. Johnson, Jr., in an earlier research project measured the personality traits of some champion athletes using two projective tests, the Rorschach and the House-Tree-Person. These outstanding characteristics were found. "(1) Extreme aggression; (2) Uncontrolled affect (emotions lacking strict controls); (3) High and generalized anxiety; (4) High level of intellectual aspirations; (5) Exceptional

feelings of self-assurance" (16:484-85).

In an attempt to differentiate more adequately between the terms "motor ability" and "athletic participation" in their relationship to some measurable aspects of personality, Keogh studied a group of 167 Pomona College junior and senior male students. They were classified according to a total test response derived from the sum of ranks of median scores. Keogh found low and middle ability groups ranked higher in the main effects and were within the non-athlete and intramural participation groups. However, athletic participation did not appear to have any effect upon the measures studied.

Keogh hypothesized:

> The pattern of results suggested an expectation hypothesis wherein higher ratings in the personality inventory might be achieved by groups of subjects who participated at a level which would be expected in relation to their ability (17:444).

He concluded that "Athletic participation did not appear to have any effect upon the measures studied, contradicting previous research" (17:445).

Sperling (33:351-63) set out to determine the relationship between personality adjustment and achievement in education activities. He used as subjects male college students. The students were put into three groups with respect to athletic achievement, namely, a group of varsity athletes, a group of intramural athletes, and a group of non-athletes.

The Human Behavior Inventory, devised by Randolph Smith, was the personality test used by Sperling, along with four additional scales for measuring personality traits: The Introversion-Extroversion Scale by J. P. and R. B. Guilford; Ascendence-Submission Reaction Scale by G. W. and R. H. Allport and P. E. Vernon.

From the scores obtained on these batteries of inventories for all three groups, a frequency distribution was taken. From the frequency tables he obtained means, medians, and standard deviations for each group on the respective personality traits measured by the scales.

The conclusions Sperling came to from his research are:

A. Statistically reliable differences were found in the personality patterns of the varsity and intramural groups as distinguished from those of the non-athlete group.

In personality adjustment scores, ascendance, and extroversion, the varsity and intramural group proved to be reliably superior to the non-athlete group.

In attitudes, the non-athlete group was found to be more liberal minded than the two athlete groups, but the differences were not statistically significant.

In interests or motivational values the varsity and intromural groups were shown to be more significantly motivated by a desire for power and to a lesser extent by a social love of people. The non-athlete group was indicated to be more aesthetic and theoretically minded.

No significant personality trait differences were found between the varsity and intramural groups examined in this study.

B. Comparisons between two groups of varsity athletes

differentiated on the basis of number of seasons of athletic experiences showed the group having greater experience to have significantly more favorable adjustment scores, to be more ascendant and more extroverted. In attitudes and interests no differences were indicated.

C. Some teams were identified as differing significantly from the total varsity group in several personality traits but none of the differences was large enough to be considered statistically certain.

D. There were shown to be small but consistent personality trait differences between a combined group of varsity individual sport teams and a combination of varsity group sports teams. The differences indicated the individual sports groups to be slightly inclined in the same direction as that of the original non-athlete group.

E. A similar series of small differences were indicated between the personality traits of a combined group of varsity body-contact sports teams and non-contact sports teams as existed between the group sports and individual sports combinations. The difference indicated the non-contact group to be similar in personality pattern to the individual sports group (33:362).

Creighton Hale (11:19-22), assistant to the president and director of research for Little League, has screeened the research, not available to this writer, concerning emotional effects of competition on pre-high school aged children. The research he has assembled makes an impressive case for competition and, of course, for Little League.

A few of the research studies cited by Hale as supplying evidence to the controversial question of the emotional development of elementary aged school children who participate in competitive athletics are reviewed here.

Salz utilized five personality tests and found that the group of boys who had been exposed to varying levels of competitive play, including the Little League world

series, scored significantly higher on the personality tests than boys who did not have competitive athletic experiences (29:21).

Vovas found that basketball elicited the greatest emotional response, baseball the lowest, and football in between (34:21).

Lareau gave the U. C. Inventory to girls in the 8th and 9th grades to determine the relationship between athletic competition and personal and social adjustment. The results were that girls experienced in athletics showed better personal and social adjustment, were more popular, exhibited higher leadership qualities, were more active in clubs and organizations and were emotionally more stable (18:20).

A general opinion was found to exist among many physical educators and mental hygienists that participation in athletics makes for more wholesome personalities. Statements to this effect are made by Heaton (13:108; 238-42); Groves and Blanchard (10:290-91); Voltmer and Esslinger (35:89); Lloyd (19:170); and Watson (36:408).

CHAPTER III

PROCEDURE

I. SELECTION OF THE TEST

Because the nature of personality is a composite of many separate traits involving the "interactions of hereditary factors and environmental forces and conditions" (9:380), the accurate measurement of personality becomes difficult. Consequently, before any measurement can be made a technique, or personality inventory, must be developed or found that will measure the factors of personality thought to be important by the investigator and applicable to the problem being studied.

As an illustration, in order to determine the effects of sports activities on personality development, Meyers (23:12) proposed a technique consisting of a personality inventory based on an interview with students before and after an instructional course in an activity, coupled with observation of students in class participation. Sperling (33:351-63), in determining the relationship between personality adjustment and achievement in physical education activities, found it necessary, in order to obtain a personality profile of each individual to be studied, to select a battery of questionnaires diagnostic of the traits of personality generally found in a personality psychograph.

a review of several test bibliographies showed that the Roger's Test of Personality Adjustment measured the types of children's adjustment characteristics that would be important to this problem.

Further research showed some advantages of the Roger's test for the purpose of this study, although a number of the tests were considerably more recent. Adequate reliability and validity data were available, which is, of course, an important factor in choosing a test; and in addition the Roger's Test employs an indirect testing technique which permits the child to express a wide range of responses. This contrasts with the California Test of Personality, in which children's responses are limited to a "yes" and "no" choice. In the Roger's test the child can compare his present self with his ideal self and, among other things, compare himself with his peer group. Even though the Roger's test was developed several decades ago, the nature of the responses obtained from it fit very well with current personality theory (3:15, 566; 12:2-5; 4:2-3; 5:Ch. I).

Besides the statistical support cited by Rogers (34:Ch. II-III) in validating his test, it should be pointed out that the test is very well disguised and has received favorable comments from clinicians who have used it:

Although this instrument for personality investigation

> of children is entirely different from the usual schedules, it is sufficiently familiar that a detailed description is unnecessary. It covers areas of personal inferiority, social maladjustment, family maladjustment, and day dreaming by setting six tasks none of which are of the yes-or-no answer type. Our experience with the scale shows that children find it more interesting and game-like than schedules of the inventory type.
>
> The statistician would frown upon this test because norms are based on 167 children, and the scoring rather complicated. However, Rogers carefully warns that, while the test may be given to small groups, it is intended as a clinical tool . . . . Further help is given the test user in four case studies in which the significance of responses are related to items of the case history.
>
> We, have used this test in our clinics, and with the exception of the time-consuming method of scoring, have found it the most satisfactory instrument of personality measurement (2:94).

To determine the reliability and validity of his Personality Adjustment test, Rogers in 1931 used a sample of 43 children, giving a retest after an interval of one month. The reliability coefficient for the four subscores ranged from .65 to .70 and the total was .72.

In determining the validity of the test Rogers used three methods: (1) comparisons were made between the personality ratings given the children by clinicians who knew them well and the children's test scores, (2) an individual study of children making the highest and lowest scores on the test, and (3) the agreement between identification of "problem" children selected by means of test scores and by teacher's ratings.

In summarizing the results of the validity of checks

for the adjustment test, Rogers states, "the fact that the results are fairly consistent throughout points to the conclusion that the test does measure children's attitudes" (26:61).

During the 1954-55 school year Burchinal, Gardner, and Hawkes (1:135-39) conducted a study to determine whether the norms given Rogers in 1931 were adequate for use today. They based their findings on 256 fifth grade children selected from areas and small towns (less than 10,000 population by the 1950 census) in Iowa, Kansas, and Wisconsin.

From their study they concluded:

> When it was apparent that Roger's norms were not realistic for present use of the test, boys' and girls' mean scores were not significantly different except for the personal inferiority scores. Therefore boys and girls were separately classified for the development of norms for the personal inferiority scores. Scores corresponding were used to define the low, average, and high quartiles. On this basis a new set of norms were proposed (1:139).

Because the norms of Burchinal, Gardner, and Hawkes are based on a larger population of boys and girls and are much more recent, they were used in this study.

To evaluate the reliability of the test in terms of the "modern child," Burchinal, Gardner, and Hawkes used 51 children who were retested after a one week interval. They found the reliability coefficent for the subscores varied from .67 to .77 and the reliability of the total score was .71.

A brief description of Roger's test and the meaning of the scores follow:

Four scores and a total score are derived. The first of the diagnostic scores (called by him the Personal Inferiority score) indicated roughly the extent to which a child thinks himself to be physically or mentally inadequate-duller, weaker, less good looking, less capable than his peers. The second score is Social Maladjustment, the extent to which he is unhappy in his group contacts, poor at making friends, poor at social skills. The Family Maladjustment score indicates the degree of his conflicts and maladjustment in relations with his parents and siblings, such as jealousies, antagonisms, feelings of being rejected, and overdependence. The fourth score, the Day Dreaming score, is designed to indicate the extent to which the child indulges in fantasies and unrealistic thinking. Rogers considered his total score as an indication of the seriousness of the child's maladjustment. A detailed description of scoring procedure is included in Appendix B.

As can readily be see, the traits measured by the Roger's Personality Adjustment Test are negative. The scores obtained on the test measure the degree of maladjustment in relation to the child's thinking of himself, his contacts with his parents, siblings, and peers. Accordingly a low score obtained by a child would be more

desirable than a high score in that it would indicate a lesser degree of maladjustment.

Table I

SUGGESTED NORMS FOR THE ROGERS TEST BY BURCHINAL, GARDNER, AND HAWKES

Adjustment scores	Low	Average	High
Personal Inferiority	-8	8-13	14+
Social Maladjustment	-12	12-17	18+
Family Maladjustment	-7	7-11	12+
Day Dreaming	-2	2-4	5+
Total Score	-33	33-43	44+

II. SUBJECTS

Following the selection and study of the test, contact was made with the officials of Grid Kids, Inc., at their first planning meeting of the year to get permission to test boys who would be participating in their football program during the 1960 season. Permission was granted to take boys from one of their practice sessions before the first game of the season. To attend these practices it was necessary to travel to the athletic fields within the Yakima, West Valley, and Terrece Heights school districts. The pre-season testing was completed within the first day of practice for some and the sixth day of practice for the last team tested.

A simple random sample was taken from each team. In all cases but one, the subjects were taken from those who

were not participating in a coaching situation at the particular time the test administrator arrived. They had either just completed their assignments or were waiting to participate. In the one exception mentioned above, the coach let five boys from the group he was coaching be administered the test. In all cases the boys were picked with no stratification in mind.

Each team of the Grid Kids was determined by geographical boundaries set up by the executives of the organization. The name of each team was derived from the area covered in relation to the city center of Yakima.

A total of twenty subjects: 10 ten year olds, 9 eleven year olds, and 1 twelve year old were given both the pre-season and post-season test (see Table II).

Table II

NAME OF TEAMS THE NUMBER AND AGES OF BOYS TESTED, PRE-SEASON AND POST-SEASON

Name	Total pre-season			Total post-season		
Age	10	11	12	10	11	12
Northeast Indians	2	2		1	1	
North Central Redskins	4	6	1	3	4	1
South Central Braves	3	2		1	1	
Northwest Savages	4	2		2	1	
West Valley Scouts	4	1		3	1	
East Valley Papooses	2	5		0	1	
Total	19	18	1	10	9	1
	N=38			N=20		

The testing was terminated two weeks prior to the first game in order to get as close to a normal condition

of the boys as was possible.

After the boys participated in a seven game schedule beginning on September 25th and ending on November 6th, the post-season test was administered. Because of a natural process of growth in emotional maturity, along with whatever influence the Grid Kid program may have had on the boys, a one month retest deadline was set. Any retesting that was done was completed not later than one month after the last league game. The post-season testing was done at the various schools the boys were attending throughout the Yakima area.

In order to substantiate the hypotheses that the subjects were representative of the normal population, a percentage chart indicating the per cent of subjects scoring in a low, average, and high rank was constructed to compare with a similar chart constructed by Rogers.

Table III, following, presents the percentages of those subjects who ranked in a low, average, and high rating for each of the traits of the test within each age group and total group for the pre-season and post-season test.

Comparison of Table III with the distribution table established by Rogers (Table IV) indicates a definitely larger per cent of the subjects in this study scoring in the low rating. Since the subjects of Roger's study were atypical in that they were admitted clinical cases, it

would be reasonable to assume, by the high percentage of low scores on this study, that the subjects tended toward a higher degree of normality. It must be remembered that since the scores obtained on the inventory indicated maladjustment, a low score indicated a higher degree of adjustment by the subjects in the trait tested.

III. TREATMENT OF DATA

The scores in all catagories of the Personality inventory for all the three groups on the pre-season and post-season tests were recorded and organized in order to obtain the means, standard deviations, and standard errors of the means. To determine differences between groups and to determine differences on pre- and post-season test scores, the "t" ratio was computed. A significant difference in scores between age groups would indicate differences in personality adjustments between the groups. Differences between pre- and post-season test scores would indicate changes in personality, as measured by the test, occuring during the time the boys engaged in the football program. Since a control group was not used, it is not possible to state conclusively that changes, if any, were due to participation in the football program.

In addition to the "t" test for significance of the differences of the means on the pre-season and post-season test, the per cent of subjects classified in the Low,

Average, and High categories was computed on the pre- and post-season tests to support trends indicated by the "t" test for significance of the difference of means (Table III).

TABLE III

PERCENTAGES OF LOW, AVERAGE, AND HIGH SCORES ACCORDING TO THE NORMS USED

N=20 PRE-SEASON	Low	Average	High
Personality Inferiority	30	50	20
Social Maladjustment	45	40	15
Family Maladjustment	60	35	5
Day Dreaming	60	35	5
Total Score	50	40	10
POST SEASON			
Personality Inferiority	35	45	20
Social Maladjustment	40	30	30
Family Maladjustment	65	25	10
Day Dreaming	55	40	5
Total Score	55	40	5

AGE 10 N=10 PRE-SEASON	Low	Average	High
Personality Inferiority	30	50	20
Social Maladjustment	40	50	10
Family Maladjustment	50	50	0
Day Dreaming	70	30	0
Total Score	50	40	10
POST SEASON			
Personality Inferiority	40	40	20
Social Maladjustment	50	20	30
Family Maladjustment	70	20	10
Day Dreaming	90	10	0
Total Score	50	50	0

AGE 11 N=9 PRE-SEASON	Low	Average	High
Personality Inferiority	33 1/3	44	22
Social Maladjustment	44	33 1/3	22
Family Maladjustment	55	33 1/3	11
Day Dreaming	77	11	11
Total Score	44	44	11
POST SEASON			
Personality Inferiority	22	55	22
Social Maladjustment	22	44	33 1/3
Family Maladjustment	55	33 1/3	11
Day Dreaming	88	0	11
Total Score	55	33 1/3	11

TABLE IV

PERCENTAGES OF LOW, AVERAGE, AND HIGH SCORES ACCORDING TO ROGER'S NORMS

N=167	Low	Average	High
Personal Inferiority	52	28	20
Social Maladjustment	12	36	52
Family Maladjustment	27	41	32
Day Dreaming	38	29	33
Total Score	23	51	25

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Table V shows the ranges, means, standard deviations, and standard errors of the means on each group and each trait tested on the pre-season test. Table VI lists the same information on the post-season test.

The "t" ratios between the groups for the different personality traits on the pre-season and post-season tests are listed in Table VII.

A .05 degree of confidence was accepted as indicating a significant difference in performance. However, analysis of the data showed that the selected degree of confidence was not reached by any age group on any of the traits measured. There appeared some statistical differences, especially within the ten year olds, but the highest degree of confidence obtained was at the 0.4 level.

The comparisons of the ten year olds' scores, between the pre-season and post-season tests on the personal inferiority scale, seemed to indicate they were less bothered by feelings of inferiority after the football season. The personal inferiority scale of the total group showed the largest change of any of the scales. Again, however, it could not be considered significant as it obtained between the 0.5 and 0.4 levels of confidence.

The social maladjustment scale on the ten year olds

TABLE V

RANGES, MEANS, STANDARD DEVIATIONS, AND STANDARD ERRORS OF THE MEANS OF EACH AGE GROUP AND TOTAL SAMPLE OF THE PRE-SEASON TEST

	Age 10 N=10				Age 11 N=9				Total Sample N=20			
	R	M	SD	m	R	M	SD	m	R	M	SD	m
Per. Inf.	13	11.5	5.70	1.803	14	10.11	5.828	1.943	14	10.80	5.411	1.210
Soc. M.	27	14.5	9.40	2.970	20	14.44	7.903	2.634	29	13.85	7.688	1.710
Fam. M	9	6.75	4.212	1.332	10	6.44	4.08	1.360	10.5	6.05	3.448	.771
D. D.	4	1.60	1.913	.605	10	2.00	3.28	1.093	10	1.50	2.330	.521
Total S.	26.5	32.15	13.173	4.166	32	33.11	15.921	5.307	33.5	32.10	19.887	4.447

TABLE VI

RANGES, MEANS, STANDARD DEVIATIONS, AND STANDARD ERRORS OF THE MEANS OF EACH AGE GROUP AND TOTAL SAMPLE OF THE POST-SEASON TEST

	Age 10 N=10				Age 11 N=9				Total Sample N=20			
	R	M	SD	m	R	M	SD	m	R	M	SD	m
Per. Inf.	14	9.3	8.222	2.60	12	10.56	5.374	1.791	15	9.50	5.115	1.143
Soc. M	17	13.4	7.132	2.252	20	14.44	8.185	2.728	20	13.35	7.506	1.677
Fam. M	9.5	6.2	3.755	1.188	12	8.17	4.934	1.645	10	6.05	3.899	.871
D. D.	4	1.4	1.428	.452	7	1.44	2.302	.767	7	1.35	1.780	.398
Total S.	21.5	30.0	12.699	4.016	33.5	34.5	15.450	5.150	35	31.50	11.583	2.588

on the pre-season and post-season tests obtained the confidence level of 0.8, whereas the eleven year olds showed no significant change. Of course, the total group showed very little change as to the subjects' reactions to their social environment.

For the trait of family maladjustment the eleven year olds had a larger degree of change between pre-season and post-season tests. They had a "t" ratio of -1.094 (significant at the 0.3 level) as compared to the ten year olds' .210 (significant at the 0.8 level). This fits very well with the adolescent developmental pattern of seeking peer acceptance as he matures, which may strain the good relations with the family and may cause discord, as perhaps this score indicates. However, as the differences in neither group were significant, generalization on this topic must be limited to conjecture. A statistical comparison of the total group on the pre-season and post-season tests show a "t" ratio of -.775, (significant at the 0.4 level) indicating the influence of the negative mean difference obtained by the eleven year olds.

Day dreaming, a test of the child's world of fantasy, showed positive mean differences in each age group as well as the total group of the pre-season and post-season tests but here again, the level of confidence did not meet the 5 per cent level set as a significant probability.

A comparison of age groups was tabulated on each phase of each test to determine if there were any similarities between the two groups. Data presented on Table VIII indicates very little similarity between the groups. Each age group had its own characteristics, and the total number could not be assumed to be one homogeneous group.

The reasons for the insignificant differences of the means could be because (1) the raw scores obtained on the pre-season and post-season tests had a peculiar distribution as compared with a normal distribution, (2) the size of the sample was too small, and/or (3) the precision of the instrument for measuring personality was not fine enough to adequately measure the "normal child."

Even though the "t" ratios indicated no significance in the differences of the means, there appeared, by observation, to be some changes made in the personality of the boys tested. An indication of a trend of a personality change occurs when the raw scores (see Appendixes C and D) of the pre- and post-season test of each personality scale measured for each age group are compared.

A further comparison of the means and standard deviations, by observation, also indicate a slight change in personality adjustment.

As an illustration, the mean of the ten year olds on the personal inferiority scale on the pre-season test was 11.5. On the post-season test it was 9.3. The

standard deviation on the pre-season test was 5.70, indicating a cluster of scores about the middle. The standard deviation of the post-season test with the smaller mean was 8.222. The larger standard deviation shows that the scores were spread more on the post-season than on the pre-season test. The spreading of the scores would indicate that some change had occurred on the personal inferiority of the ten year olds.

Analyzing the scores and means of the pre-season and post-season tests in light of the example mentioned above, there appeared to be a trend towards a personality change. This conjecture of a trend towards a personality change of the boys tested is supported by the percentages computed in Table III.

TABLE VII

"t" RATIOS WITHIN AGE GROUPS, TOTAL GROUP, AND BETWEEN AGE GROUPS ON PRE-SEASON AND POST-SEASON TESTS

	Diff. Pre and Post by Age			Comparison between Ages	
	Age 10 N=10	Age 11 N=9	Total N=20	Age 10 & 11 Pre-season	Age 10 & 11 Post-Season
Personal Inferiority	.696	.170	.795	.172	-.128
Social Maladjustment	.295	.000	.209	.005	-.096
Family Maladjustment	.210	-1.094	-.775	.053	-.352
Day Dreaming	.837	.418	.724	-.421	.015
Total Score	.432	-.191	.117	-.050	-.225

CHAPTER V

SUMMARY AND CONCLUSIONS

This study tried to determine the effects of participation in a football program on the personality adjustment of boys aged ten, eleven, and twelve who live in Yakima and neighboring areas. To carry out the purpose of the study it was necessary to select an appropriate device to measure personality adjustment.

Concern over the growth of competition for boys in the elementary schools and its effect on the physical, emotional, and social development of the participants has increased over the last few years. The literature reviewed was limited to reports of opinions and recommendations about competitive athletics for children and the emotional and social development of the elementary boys or girls participating in competitive situations.

A personality inventory was found for the purpose of studying the differences, if any, in personalities of elementary aged boys who participated in a tackle football program. The personality inventory was written by Carl R. Rogers in 1931; however, norms compiled by Burchinal, Gardner, and Hawkes for the inventory were used for this problem. The inventory consisted of four aspects within a personality: Personal Inferiority, Social

Maladjustment, Family Maladjustment, and Day Dreaming.

The test was administered to boys who participated in a football program administered by private interests. A total of twenty boys was given the test before and after the season of participation.

Analysis of the data showed no significant differences of the means by any age group or the total group on any of the traits measured by the test.

On the basis of the results obtained from this sample, that there will not be a significant change in personality by elementary boys participating in a football program.

It is recommended that (1) a larger sample be used, (2) a control group be used to compare with those participating in the football program, and (3) a different personality inventory be used that will measure a finer degree of personality change.

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APPENDIXES

APPENDIX A

ROGER'S PERSONALITY ADJUSTMENT TEST

PART I

Suppose that just by wishing you could change yourself into any sort of person. Which of these people would you wish to be? Write a "1" in front of your first choice, a "2" in front of your second choice, and a "3" in front of your third choice:

(a)_____a housewife
(b)_____a teacher
(c)_____a movie star
(d)_____a stenographer
(e)_____a storekeeper
(f)_____a cowboy
(g)_____a business man
(h)_____a business woman
(i)_____a princess
(j)_____an inventor
(k)_____a policeman
(l)_____an aviator
(m)_____a captain
(n)_____a fireman
(o)_____a poet
(p)_____a detective
(q)_____a doctor
(r)_____a nurse
(s)_____an engineer
(t)_____an actress
(u)_____a prizefighter
(v)_____a king
(w)_____a singer
(x)_____a lawyer
(y)_____a salesman
(z)_____an artist

Is there any other sort of person you would very much like to be? If there is, write it here: _____

PART II

Suppose you could have just three of the wishes below, which would you want to come true? Put a "1" in front of your biggest wish, a "2" in front of your second biggest wish, and a "3" in front of your third:

I would like

(a)_____to be stronger than I am now.
(b)_____to have the boys and girls like me better.
(c)_____to get along better with my father and mother.
(d)_____to be brighter than I am now.
(e)_____to play games better.
(f)_____to have a different father and mother.
(g)_____to be a boy(if you are a girl).
(h)_____to be a girl(if you are a boy).
(i)_____to be bigger than I am now.
(j)_____to have more money to spend.

PART II (Continued)

(k)_____to be grown up and get away from home.
(l)_____to have more friends.
(m)_____to be better looking.
(n)_____to have my father and mother love me more.

PART III

Suppose you were going away to live on a desert island, and could only take three people with you. Write here the names of the three people you would take:

1._____

2._____

3._____

PART IV

Read the sentences below, and the questions that follow them.. If the answer to a question is "yes", put a check mark (x) on "yes". If the answer is "no", put a mark on "no". If the true answer is somewhere in between Yes and No, put the mark where it will be most true. Study this sample until you know how to do it.

Sample: Harold can run faster than any boy in school.

Am I just like him?	Yes			X						No
Do I wish to be just like him?	Yes	X								No

Do the sentences below the same way you did the sample.

1. Peter is a big strong boy who can beat any of the other boys in a fight.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

2. George likes to read. He has read all the books he can get about cowboys, Indians and soldiers.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

3. Ed is the best ball player in school.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

PART IV (Continued)

4. Sam gets very good marks on all his school work.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

5. Allan has make-believe friends and a make-believe world which is much nicer than the real world. He sits and dreams of all sorts of make-believe adventures with these make-believe friends.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

6. Joe is a leader. All the fellows do what he tells them.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

7. Steven doesn't know how to play baseball, football, or basketball.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

8. Alfred always does just what his mother tells him to do.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

9. John is the most popular boy in school. Everybody likes him.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

10. Harry has more girl friends than any of the other fellows.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

11. Walt is pretty "dumb" in his school work.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

12. Jack doesn't want to mind his father and mother. He knows he is old enough to decide things for himself.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

13. Don has more spending money than the other boys.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

PART IV (Continued)

14. Bob is the brightest boy in school.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

15. James likes to sit by himself and imagine things. He thinks it is much more fun than playing games.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

16. Fred fights a good deal with his brother and sister, no matter how hard he tries not to.

Am I just like him?	Yes									No
Do I wish to be just like him?	Yes									No

17. Which of these boys would your mother like best? Write his name here. _____.

18. Which of these boys would your father like best? Write his name here._____.

PART V

In the questions that follow, put a mark (x) in front of the line that is the true answer, unless it tells you to do otherwise.

1. How well can you play ball?
   (a)_____can't play ball at all.
   (b)_____can play a little bit.
   (c)_____can play pretty well
   (d)_____best player in my class.

2. How many friends would you like to have?
   (a)_____none.
   (b)_____one or two.
   (c)_____a few good friends.
   (d)_____many friends.
   (e)_____hundreds of friends.

3. How strong are you?
   (a)_____very weak.
   (b)_____not very strong.
   (c)_____strong.
   (d)_____the strongest in my class.

PART V(Continued)

4. When you are grown up, what sort of person do you want to be?
   (a)_____I want to be a very great person and do great things that people will talk about.
   (b)_____I want to be one of the leaders in whatever town I live in.
   (c)_____I want to be a happy, ordinary person, with a good job.
   (d)_____I would rather not grow up.

5. Do you like to play games with other boys and girls?
   (a)_____I don't, because I can't play games very well.
   (b)_____They don't want me to play with them, because I can't play games very well.
   (c)_____I like to play games fairly well.
   (d)_____I like it a great deal.
   (e)_____I would rather play games than anything else I know.

6. (In this question put a "1" in front of your first choice, a "2" in front of your second choice, and a "3" in front of your third choice.)
   If you were going to the circus, would you rather go
   (a)_____with your father?
   (b)_____with your best friend?
   (c)_____with a group of friends?
   (d)_____with your mother?
   (e)_____all alone?

7. Do you want to be a grown-up man or woman?
   (a)_____I just can't wait to be grown up.
   (b)_____I would like to be grown up.
   (c)_____I don't want to be grown up. I would rather be just as I am.
   (d)_____I would like best of all to be a few years younger than I am now.

8. How well do your father and mother like you?
   (a)_____I am the one they like best of all.
   (b)_____They like me second best.
   (c)_____They like all my brothers and sisters better than they like me.
   (d)_____They like me well enough, but not better than my brothers and sisters.

PART V(Continued)

9. Which do you like best?
   (a)_____to go off by yourself and play or read.
   (b)_____to play with one or two others.
   (c)_____to play with a whole crowd.

10. Do you like to have some one else tell you how to do things?
   (a)_____I like it.
   (b)_____I don't care.
   (c)_____I would rather do things my own way.
   (d)_____I hate to be told what to do.

11. How do you feel when your brother or sister is praised for something they have done?
   (a)_____I feel proud of them.
   (b)_____I wish I could do better than they have done.
   (c)_____I don't like to have them praised.
   (d)_____I hate to have them do better than I can do.
   (e)_____I don't care.
   (f)_____I don't have any brother or sister.

12. Are you good-looking?
   (a)_____I'm not at all good-looking.
   (b)_____I'm not very good-looking.
   (c)_____I'm as good-looking as most boys and girls.
   (d)_____People say I'm very good-looking.

13. Do other children play mean tricks on you?
   (a)_____never.
   (b)_____sometimes.
   (c)_____very often.

14. Do you have any good friends?
   (a)_____none at all.
   (b)_____one or two.
   (c)_____a few good friends.
   (d)_____many friends.
   (e)_____hundreds of them.

15. Do you like to get into rough games, wrestling matches, football games, and things like that?
   (a)_____I like them very much.
   (b)_____I like them a little.
   (c)_____I don't like them.
   (d)_____I hate to have people push and pull me around.

PART V(Continued)

16. Do people treat your brother (or sister) better than they treat you?
   (a)_____never.
   (b)_____sometimes.
   (c)_____often.
   (d)_____almost always.
   (e)_____I haven't any brother or sister.

17. Do you wear good clothes to school?
   (a)_____I don't have any nice clothes.
   (b)_____My clothes are nice enough.
   (c)_____I have very good clothes.

18. What do your father and mother want you to do when you are grown up?
   (a)_____they want me to be a very great person and do great things that people will talk about.
   (b)_____they want me to be one of the leaders in whatever town I live in.
   (c)_____they want me to be a happy, ordinary person with a good job.
   (d)_____they don't want me to grow up.

19 Do boys or girls like you best?
   (a)_____the boys like me better than the girls do.
   (b)_____the girls like me better than the boys do.
   (c)_____I am popular with both boys and girls.
   (d)_____I am not popular with either boys or girls.

20. When do you think one has the most fun in life?
   (a)_____when you are a young child.
   (b)_____when you are between 9 and 12 years old.
   (c)_____when you are between 12 and 25 years old.
   (d)_____after you are 25 years old.

21. Do you want people to like you?
   (a)_____I just can't stand it if people don't like me.
   (b)_____I always try very hard to make people like me.
   (c)_____I don't care very much, but I'm glad when people like me.
   (d)_____I don't care a bit whether people like me or not.

PART VI

Fill in enough of the squares below to show how many there are in your family. If you had one older brother and two younger sisters, you would fill them out like the sample. Notice that you put the oldest person in the family first, then the next oldest, and so on. Don't forget to put yourself in. Cross out the extra squares:

Sample
father
mother
brother
me
sister
sister
Your best girl friend
Your best boy friend

Now go back and put a "1" in front of the person you love most, a "2" in front of the person you like next best, a "3" in front of the person you like next best, and so on through the whole list. Sometimes it is very hard to decide which person you love most; but do the best you can, and be sure that you put a number in front of each person except yourself. Don't forget the last two, your best boy friend, and best girl friend. Put a number in front of them, too, that will tell how much you like them.

APPENDIX B

DIRECTIONS FOR SCORING THE TEST

Personality Inferiority Score

No. 1: Omit

No. 2: Examine items a, d, i, m.
If choices 1 and 2, 1 and 3, or 1, 2, 3, are in this area, score 4 points. If choice 1 alone is in this area, score 3 points.

No. 3: Omit

No. 4: Add the number of double checks (✓) occurring at the extremes of questions: 1, 2, 3, 6, 8, 9, 10, 13, and 16, (extremes of yes and no). Each double check scores 1 point
Add the number of points of conflict, (question A, below) shows 5 points of conflict in this direction (\). Question B shows 8 points of conflict in this direction (/). The highest possible number on one question is 9. In the direction notes for these questions:

1. /
4. /
11. \
14. \

Total number points conflict divided by 3 equals points

No. 5: If these items are checked score as indicated.

1. d - 3 points
2. e - 2 points
3. a,b, or d - 1 point
4. a - 2 points
4. b - 1 point
7. d - 1 point
12. a,b, or d - 1 point
18. a or b - 2 points
18. If the check on 18 is higher than the check on question 4, score 2 points additional.

No. 6: Omit
The total number of points thus obtained, is the Personal Inferiority score.

Yes / / / / / / / / / No /	Yes / / / / / / / / / No /
Yes / / / / / / / / / No /	Yes / / / / / / / / / No /

Social Inferiority Score

No. 1: Omit

No. 2: Examine items b, e, j, l.
If choices 1, 2, and 3 are in this area, score 8 points.
If (1,2) (1,3) (2,3) or (1) are in this area, score 7 points.
If choice 2, or 3 alone, score 3 points.

No. 3: If all three are members of the family or if they are adults e.g. teacher, or if they are left blank, score 4 points.
If two are as described above, score 3 points.
If one is as described above, score 2 points.

No. 4: Examine these questions:
3, 6, 9, 13.
Score each one that has the left hand extreme double checked thus:
(Yes)✓ as one point
(Yes)✓
Examine the questions below. Each question shows a conflict in the direction noted scores 1 point.

2.\	5.\	9. /	15.\
3. /	6. /	10. /	
4.\	7.\	13. /	

No. 5: If these items are checked, score as indicated.

1. a - 3 points	13. c - 2 points
1. b - 2 points	14. a or e - 3 points
1. d - 1 point	14. If the check on 14 is two or more lines above the check on question 2, score 3 points additional.
2. a - 2 points	
2. e - 1 point	
5. a or b - 2 points	
6. e (whether marked 1, 2, or 3) - 2 points	15. b, c, or d - 1 point
9. a - 2 points	17. a - 2 points
9. c - 1 point	19. b or d - 2 points
	21. a - 2 points

No. 6: If the child crosses out or leaves blank the space indication a friend of his own sex while putting a number beside a friend of the opposite sex, score 2 points. If the child crosses out names of both friends, or writes that he has none, score 3 points.
If the child gives a lower number to friend of opposite sex than to a friend of own sex, score 2 points.
The total number of points thus obtained is the Social Inferiority Score

<u>Family Relationships Score</u>

No. 1: Omit

No. 2: Examine items c, f, n.
If one of these items is marked (with either 1,2, or 3) score 2 points.
If two of these items are marked, score 4 points.

No 3: Omit.

No. 4: <u>Question 8</u>--If more than 3 points of conflict in this direction (/) score 1 point
<u>Question 12</u>--If marked "No-No", score 1 point.
If more than 3 points of conflict in this direction,\ score 2 points.

Question 16--If subject has any siblings (this is determined by looking at No. 6) and marks No-No, score 1 point.
If more than 5 points of conflict in this direction, score 2 points.
Question 17--Look back to the child who is named. Count the number of spaces from "Yes" to the subjects rating of himself. This number divided by 2 equals the score.

No. 5:

6. If a or d is marked "1"- 1 point	
8. b or c - 2 points	16. a or c - 1 point
10. c or d - 2 points	16. d - 2 points
11. b or e - 1 point	18. a - 3 points
11. c or d - 2 points	18. b - 2 points

No. 6:
If there are two or more siblings, and one of the siblings next to the child is given the highest number in the family, score 1 point.

If one of the friends is given a lower number than some member of the family score 2 points.

If parents are separated by two ratings (e.g. mother rated 1, father rated 3) score 2 points.

If parents are separated by more than two ratings, score 4 points.

If parents receive highest numbers, score 2 points.

The total number of points thus obtained is the Family Relationship Score.

Daydreaming Score

No. 1: If c, i, t, u, or v are marked 1, score 2 points.
If any two of these are marked, score 2 points.
No. 2: Omit.
No. 3: Omit.
No. 4: Question 5--If self or ideal is rated more than 2 points from the right, score 2 points.
Question 15--If self or ideal is rated more than 2 points from the right, score 2 points.
No. 5: If these items are checked score as indicated.
4. d - 1 point
6. e (If marked 1,2, or 3) - 2 points
7. d - 2 points
9. a - 3 points
20. a - 1 point
The total number of points thus obtained is the daydreaming Score.

APPENDIX C

RAW SCORES AND RATINGS ON EACH TRAIT OF EACH BOY ON THE PRE-SEASON TEST

CHILD	Age	Personal Inferiority		Social Maladjustment		Family Maladjustment		Day Dreaming		Total Adjustment	
		Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating
1	10	17	high	9	low	8	ave.	0	low	34	ave.
2	10	5	low	35	high	3.5	low	2	ave	45.5	high
3	11	11	ave.	19	high	12.5	high	10	high	52.5	high
4	10	12	ave.	16	ave.	12	low	2	ave.	38.5	ave.
5	11	11	ave.	8	low	2.5	low	0	low	20.5	low
6	12	10	ave.	8	low	4.5	low	0	low	22.5	low
7	11	18	high	15	ave.	7	ave.	1	low	43	ave.
8	11	15	high	17	ave.	4.5	low	0	low	36.5	ave.
9	11	4	low	16	ave.	3	low	2	ave.	25	low
10	11	5	low	26	high	5	low	3	ave.	39	ave.
11	10	12	ave.	8	low	2	low	2	ave.	24	low
12	10	7	low	10	low	2	low	0	low	19	low
13	10	7	low	16	ave.	11	ave.	4	ave.	35	ave.
14	11	7	low	11	low	8	ave.	0	low	26	low
15	10	13	ave.	8	low	10	ave.	0	low	31	low
16	11	12	ave.	12	ave.	10.5	ave.	0	low	34.5	ave.
17	11	8	ave.	6	low	5	low	2	ave.	21	low
18	10	13	ave.	14	ave.	5.5	low	0	low	32.5	low
19	10	11	ave.	8	low	7	ave.	0	low	26	low
20	10	18	high	15	ave.	3	low	0	low	36	low

APPENDIX D

RAW SCORES AND RATINGS ON EACH TRAIT OF EACH BOY ON THE POST-SEASON TEST

CHILD	Age	Personal Inferiority		Social Maladjustment		Family Maladjustment		Day Dreaming		Total Adjustment	
		Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating
1	10	13	ave.	11	low	10	ave.	2	ave.	36	ave.
2	10	8	ave.	20	high	8	ave.	2	ave.	38	ave.
3	11	9	ave.	23	high	12.5	high	7	high	51.5	high
4	10	7	low	17	ave.	12	high	4	ave.	38	ave.
5	11	13	ave.	13	ave.	6.5	low	0	low	32.5	low
6	12	2	low	13	ave.	3.5	low	0	low	18.5	low
7	11	12	ave.	16	ave.	4.5	low	0	low	32.5	low
8	11	14	high	15	ave.	7	ave.	1	low	37	ave.
9	11	6	low	6	low	4	low	2	ave.	18	low
10	11	9	ave.	20	high	10.5	ave.	1	low	39.5	ave.
11	10	17	high	11	low	6	low	2	ave.	34	ave.
12	10	3	low	11	low	2.5	low	0	low	16.5	low
13	10	5	low	18	high	44	low	2	ave.	29	low
14	11	4	low	16	ave.	5	low	0	low	25	low
15	10	12	ave.	8	low	6	low	0	low	26	low
16	11	16	high	18	high	7.5	ave.	2	ave.	43.5	ave.
17	11	12	ave.	3	low	16	high	0	low	31	low
18	10	4	low	15	ave.	4.5	low	0	low	23.5	low
19	10	16	high	3	low	5	low	0	low	24	low
20	10	8	ave.	20	high	4	low	4	ave.	36	ave.