A STUDY OF SOME FACTORS RELATED TO ACHIEVEMENT OF
INTELLECTUALLY SUPERIOR EIGHTH-GRADE CHILDREN

DISSERTATION

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Chapter I

AN INTRODUCTORY DISCUSSION OF THE PROBLEM

It is often remarked that we spend a great deal of time and energy helping dull and mentally defective children, with little expectation of any important returns on our investments, and that we put forth relatively little effort in behalf of bright and gifted children where the dividends on our investments might be very great. There is evidence to support this supposition, too. An Ohio study based upon a ninety per cent return from 258 superintendents showed eighteen per cent reporting no special provision for their gifted pupils. (1) Two other surveys, conducted about ten years apart, showed that a relatively small proportion of schools make any provision for the special needs of gifted children. It was found that most modifications of instructional practices involved only assigning more work, especially more reading, with little or no regard for the special interests and special skills that gifted children usually have. (2)(3) This neglect continues in spite of the challenge set forth in the recommendation

1 Ohio Department of Education, Division of Special Education, Status of the Gifted in Ohio, Columbus: The Department of Education, 1951.

2 National Education Association Research Bulletin, "High School Methods with Superior Students," Vol. XIX, No. 4, Washington, D. C.: National Education Association, (September 1941).

3 Frank Wilson, "School Provisions and Preparation of Teachers for Teaching Gifted Children in Elementary and High Schools in the United States," (unpublished investigation), New York: Hunter College, 1952.

made by the 1930 White House Conference on Child Health and Protection:

It is agreed that in a democracy more than in any other form of government, high grade leadership is essential ... And yet there are one million and a half children in our public schools with exceptionally good brains and exceptionally high intelligence, who need only the permission and the opportunity to develop leadership for which they have the foundation; therefore, we urge ... active and efficient steps to save this large number of children from idleness ... and the neglect which is their portion in the average public school of today. Aside from the injustice to the child himself, it is almost a social crime to neglect these highly endowed children.(4)

The philosophy is widely proclaimed by American educators that education should provide for equal opportunity and for the maximum development of every boy and girl according to his unique nature and needs. In actual practice, there are still too many school administrators and lay citizens who seem to feel that equality of educational opportunity means giving about the same thing at the same age to everyone, with but slight variation. They reason that if the gifted are working up to grade level, their responsibility ends there. This attitude reflects a total disregard for individual differences. If opportunity is to be equal, it must be provided for in terms of individual abilities and capacities, to the end that every child will be challenged to utilize his powers to the fullest.

In the Stanford genetic studies of gifted children, Terman and Oden estimated that "more than half of the children with I.Q.'s of 135

4 White House Conference on Child Health and Protection, Special Education: The Handicapped and the Gifted, (New York: The Century Co., 1931), p. 549.

or above had already mastered the school curriculum to a point two full grades beyond the one in which they were enrolled and some of them as much as three or four grades beyond."(5) As one writer states, "The gifted, the potential leaders, discoverers, and creators ... are usually left to develop their own skills in their own way and in terms of personal initiative alone."(6) This gross neglect of bright and gifted children is acknowledged by many school people, but little is done to correct the situation. Even in the past decade, only sporadic efforts have been made in finding ways and means of conserving and developing the superior abilities of mentally gifted children.

NATURE OF THE PROBLEM

The relation of pupil intelligence to pupil achievement has been discussed extensively in educational literature under the general heading of "expectancy", "prediction", or "prognosis". It is a common practice among teachers and other school personnel to compare a pupil's measured achievement on a standardized test with his measured or estimated ability to achieve. Deviations from expectancy assume positive or negative values depending upon whether tested achievement is above or below the estimated ability to achieve. For example, if a pupil's reading achievement level is equivalent to a grade placement of the ninth month of the seventh grade, while his mental age grade placement (ability to achieve)

5 L. M. Terman and M. H. Oden, The Gifted Child Grows Up, (Stanford California: Stanford University Press, 1947), p. 28.

6 C. C. Miles, "Gifted Children," In L. Carmichael, ed., Manual of Child Psychology, (New York: John Wiley and Sons, Inc., 1946) p.931.

is equivalent to the eighth month of the eighth grade, he is achieving approximately nine months above expectancy.* In making comparisons of this kind, persons working with tests of intelligence and achievement frequently ignore the fact that there are other factors than intelligence that are important in determining subject matter achievement.

It has become a truism with classroom teachers that no two pupils are exactly alike, even though they may resemble each other in appearance or manner. Whereas it is relatively easy to recognize individual differences in such physical traits as height and weight, differences among individuals in such "psychological" or "social" traits as needs, motivation, personal and social adjustment are often difficult, if not usually impossible, to measure by observation alone. Because of the subjectivity involved, or because of faulty observation by casual or untrained observers, these individual differences are often overlooked. But this is not to say that they do not exist, and that their presence does not affect every aspect of a pupil's experience.

Superior intellectual ability without opportunity for development through education and experience tends to be wasted. Even when such ability is given the best of opportunities, it may not be used to advantage if social and emotional problems are unresolved. "Ability embodied in a disorganized personality tends to be either undeveloped

* Raymond Franzen divided the educational age by the mental age and secured an accomplishment quotient (AQ). Because such quotients are founded upon unsound statistical assumptions, they have practically gone out of use. ("The Accomplishment Quotient," Teachers College Record, 21:432-440, November 1920.)

or paralyzed at the very threshold of production."⁽⁷⁾

A hypothetical case history illustrates the point:

Most gifted children like school, but some do not. Marie Eklund illustrates the exception. Her unhappy school experience suggests that she was unequal to her encounter with a lockstep curriculum and inflexible teaching methods. Perhaps the root of the difficulty was the failure of her teachers to appreciate her abilities and to understand her needs. She became bored with school work and expressed her frustrations in unacceptable behavior. She received no encouragement to pursue the intellectual interests which might have challenged her able mind. Neither her family nor school counselors gave her reason to appreciate the importance of education to vocational opportunity.⁽⁸⁾

The present study is an effort to determine, if possible, the relative importance of certain social and psychological factors, in addition to other more objective data, which contribute to academic achievement in a group of intellectually superior children at the eighth grade level. We are interested in the nature and extent of individual differences, but our primary concern is to discover some of the causal factors which underlie these individual differences. In other words, what personality correlates are there, if any, to "concealed failure" among pupils who are operating below their appropriate achievement level, although not failing by a school's standard? Is expression blocked in some way by strong emotional needs, feelings of insecurity or immaturity? What conditions other than general ability

⁷ Educational Policies Commission, Education of the Gifted, (Washington, D.C.: National Education Association and the American Association of School Administrators, 1950), p. 27.

⁸ Educational Policies Commission, op. cit., p. 19.

operate to affect maximum achievement?

STATEMENT OF THE PROBLEM

The purpose of this study is to determine some factors, if any, that may account for the differences in the academic achievement level of a group of intellectually superior eighth grade pupils. The investigator is interested specifically in studying the interrelationship that may exist between the following variables:

1. reading achievement
2. arithmetic achievement
3. language achievement
4. male-female
5. chronological age
6. I.Q.
7. weight age
8. height age
9. father's occupation
10. vocational goal
11. behavioral immaturity
12. feelings of inadequacy
13. close personal relations
14. social participation
15. need for achievement
16. need for affection
17. need for conformity
18. need for dependence

19. need for heterosexual relationships
20. need for independence
21. need for mastery-dominance
22. need for recognition
23. decisiveness
24. preference for intellectual vs. non-intellectual school activities
25. preference for social vs. non-social out-of-school activities
26. number of states traveled in United States
27. Everett Junior High School *
28. Crestview Junior High School
29. Worthington Junior High School
30. Cassingham School (Bexley)
31. Upper Arlington School
32. The University School
33. Siblings vs. no siblings

THE IMPORTANCE OF THE PROBLEM

The public schools are dedicated to the task of providing opportunities for the maximum educational development of each pupil. Each student should have those educational experiences that will permit him to become of maximum worth to himself, to his community, and to society.

* Variables 26 through 32 are dichotomous and mutually exclusive variables; i.e., a subject is considered as attending or not attending each of the above named schools.

"The democratic ideal can be most fully attained when every individual has opportunity for educational experiences commensurate with his abilities ..."(9)

Education in this country has been described sometimes as being an educational system of poorly connected parts held together by the principle of the chronological lock step. By custom, and in most communities by regulation as well, children enter first grade at the age of six and are marched in unison through one grade per year. "A folklore of child psychology has grown up which protects this system."(10) It is implicitly assumed also that there is a "right" age for all young people to enter high school and college, and worried questions are asked about those who deviate from the accustomed pattern. Both teachers and parents have been known to ask: "Won't this premature exposure to high school corrupt their morals, or adversely affect their social and emotional development? Won't they miss opportunities to develop leadership capacities within their own peer groups?" The whole notion that there is a "right" age to enter first grade, high school or college is subject to considerable doubt. Strict adherence to this practice might easily lead to the "dulling of student interest in learning, a downgrading of educational results, and a waste of human resources."(11)

9 Educational Policies Commission, op. cit., p. 4.

10 Ibid., p. 12.

11 The Fund for the Advancement of Education, (established by the Ford Foundation), Bridging the Gap Between School and College, Evaluation Report Number 1, June 1953, p. 9.

The critical shortage of leaders in all fields of human endeavor makes it imperative that special attention should be given to identifying the mentally superior pupils in our schools. We cannot leave this responsibility to the chance observation of teachers. Though teachers' judgments and observations are of value, their appraisals are often colored by personal bias. Completing routine assignments perfectly is often mistaken for evidence of superior ability. Experience has proven also that the bright child is not always the "good" child who conforms readily to the teacher's wishes. Special interests of superior pupils have been known to hinder achievement in unchallenging school subjects, too. The early identification of pupils with superior ability should come about through objective measures of intelligence and achievement, observations, and the study of other data in a pupil's cumulative record. Perhaps, a few that possess an inner drive and whose environment has by chance evoked strong motivation will rise to the top, but the idea that "geniusness" will emerge in spite of difficulties is fallacious more often than not. Although every individual has a contribution to make to society, those with superior ability carry a larger obligation than those whose capacities are more limited.

"The fact that the world of the mid-twentieth century has contracted into a figuratively small and interdependent sphere, people by nations that must perforce learn to live as neighbors in spite of their diversities of language and culture, has been widely recognized. That the United States will continue to play a leading role in this contracted

world is clear to all."(12) If advances in medicine, the humanities, and the sciences are to continue at the present rate in this country, the supply of specialized personnel must expand. The outlook is dismal. "Only forty per cent of the high school graduates of college ability are granted a college degree. What happens to the other sixty per cent? Twenty per cent drop out during college, and forty per cent never enter college."(13)

The technological advances of the world during the last decade have been made possible by the increasing number of scientists and engineers. Statistics show that the number of scientists and engineers graduating from college in 1950 doubled the figure for 1940. "Basing estimates on the population reaching college age and the normal increase in persons going to college, it seems fairly certain that for the next few years the supply of scientists and engineers cannot increase as it has during the past five years. Yet the survival of our democratic way of life depends upon our increased technological progress."(14)

The need our country has for able and educated leaders is acutely felt by every thinking individual. Indeed, our country is faced with momentous problems. The Educational Policies Commission has clearly defined a great challenge to modern education. "If the dynamic quality of American society is to be maintained, our leaders must be men and

12 Educational Policies Commission, op. cit., p. 8.

13 U. S. Department of Health, Education and Welfare, Office of Education, "Education of the Talented in Mathematics and Science," Bulletin No. 15, 1952, p. 3.

14 Ibid., p. 2.

women of creative vision and high intellectual competence. Moreover, the complexities of contemporary life demand that the potential abilities of our leaders be well developed through education. Their education should not only enable them to apply their talents efficiently to the problems they will confront; it should also acquaint them with the ways in which others have solved similar problems and so help them to share in the collective wisdom of mankind."⁽¹⁵⁾

ASSUMPTIONS BASIC TO THE STUDY

The assumptions upon which this study was based are as follows:

1. An intelligence test does not enable us to identify all gifted children or tell us "how gifted" they may be.
2. As long as there are no accurate measures of innate capacity, it is impossible to determine what child accomplishes the most for his capacity. There is also no statistical method for determining when a child is maximally motivated.
3. Intelligence is a significant determiner of school achievement; but many other personal, social, psychological and emotional factors affect the nature and extent of school achievement. Therefore, mental tests alone are inadequate as a means of predicting achievement.
4. The method of teaching and the type of instructional materials used will determine to some extent the correlation between achievement and mental ability.
5. The gifted do not constitute a discrete category of individ-

¹⁵ Educational Policies Commission, op. cit., p. 8.

uals. They differ from others only relatively, but on the average, tend to be the more extreme deviates on a continuous scale in matters of physical, social, psychological, and educational growth and development.

6. The child is viewed "as a total organism rather than as a source of separate sets of data. ... There is an intimate relationship in the functioning of all aspects of growth. ... achievement in school is a function of the total growth of the child."(16)

7. Every pupil of normal ability should acquire the skills of reading, arithmetic, and language usage that every person needs, regardless of his tastes, aptitudes or future life work. Without these skills, it is impossible to acquire and continually expand the knowledge which is considered indispensable to the educated man.

LIMITATIONS OF THE STUDY

There are some limitations to this study. These are presented thus:

1. This study is not concerned with the problem of determining how nearly a pupil's actual progress or achievement measures up to his ability.

2. As used in this study, giftedness refers to those of superior general intelligence and not to those who are especially talented in a particular field of endeavor, such as mathematics, science, music or art.

16 Willard C. Olson, Child Development, (Boston: D. C. Heath and Co., 1949), Chapter VII, "The Child as a Whole," pp. 163-192.

3. In identifying the gifted pupil for this study, a score from a single test of intelligence was the sole criterion used. Such factors as physical, emotional, and social development were not taken into consideration.

4. Standard tests of achievement do not often give valid measures of the content areas they cover. As an example, the curricular validity of the California Achievement Test Battery as an instrument to measure the extent to which pupils have learned what the curriculum was intended to teach them in the language area is probably very low. Standardized tests of achievement also fail to measure depth as well as breadth in understanding and knowledge.

5. When interpreting achievement in relation to ability and other personality factors that have been measured solely through paper and pencil techniques, a person is dealing with data that has questionable validity.

6. Intelligence tests measure chiefly conventional reactions and behavior and not to any great extent extraordinary memory, intellectual curiosity, the ability to do abstract thinking, the ability to apply knowledge to other situations, persistence in worthwhile behavior, productivity, and the integration of knowledge and personality.

DEFINITION OF TERMS

The terms which have specific meanings in this study are here defined:

Intellectually superior; potentially gifted; moderately gifted:

These terms and other similar ones will be used interchangeably in this

study. They are used to designate pupils who have obtained an I.Q. of 120 or above on a group intelligence test within the last two years. The term will apply to those individuals who fall within approximately the top eleven per cent of the total population with respect to intellectual capacity. *

Achievement: When reference is made to achievement in connection with pupils in this study, it refers only to the measures of reading, arithmetic and language usage obtained from the administration of the California Achievement Test Battery, intermediate form. As used here, neither teacher judgments nor grades enter into the determination of academic achievement.

* Hollingworth and Baker have defined a gifted child as one having an I.Q. above 130. Norris included children from 125 I.Q. in grouping superior adolescents in the Major Work Classes in Cleveland, Ohio. The Educational Policies Commission use the term "moderately gifted" to designate individuals who fall within the top 10% but below the top 1%, that is, between 120 and 137 I.Q.(17)

17 Leta S. Hollingworth, Gifted Children: Their Nature and Nurture, (New York: Macmillan, 1926). H. J. Baker, Introduction to Exceptional Children, (New York: Macmillan, 1944). Dorothy E. Norris, "Program for Gifted Children in Cleveland," (National Education Association Addresses and Proceedings, 1940), pp 639-640. Educational Policies Commission, Education of the Gifted, (Washington, D. C.: National Education Association and the American Association of School Administrators, 1950), p. 43.

PLAN OF THE STUDY

The statement of the problem, the importance of the problem, the assumptions basic to the study, the limitations and definition of terms have been discussed in this chapter. The next chapter will review earlier studies that have investigated factors related to pupil achievement as well as research on gifted children. Subsequent chapters deal with source of data, methodology, presentation of the data, and there will be a final chapter drawing conclusions and suggestions for continued research.

Chapter II

A REVIEW OF RELATED RESEARCH

Adolescence has been traditionally accepted as a term to describe individuals who are in a transitional period between childhood and maturity. It is a time of seeking status and recognition as an individual; a time of significant physical growth and development; a time of great pre-occupation with group and heterosexual activities; a time of intellectual expansion and development; and a time of development and evaluation of values. While it is true that the adolescent is a human being before he is an adolescent, it is equally true that the period presents many unique situations and adjustment problems.(1)

Problems related to adolescence have commanded the attention of investigators for more than fifty years. Research has centered in two broad areas: first, in studying the characteristics of physical, social, and psychological development in adolescence, and second, in prognosticating future growth, achievement, and adjustment. The number of studies has been so great that it would be impossible to describe them all. The writings of Horrocks(2), Cole(3), Cruze(4), Garrison(5), to name only a few, review research in both these areas.

1 John E. Horrocks, Behavior and Development, (New York: Houghton-Mifflin Co., 1951), p. xi.

2 Ibid.

3 L. Cole, Psychology of Adolescence, (New York: Rinehart, 1954).

4 Wendall Cruze, Adolescent Psychology and Development, (New York: Ronald Press Co., 1953).

5 Karl Garrison, The Psychology of Adolescence, (New York: Prentice-Hall, Inc., 1946).

Many excellent summaries, such as Green's(6), Tyler's(7), Ross's(8), and Anastasi's(9) are also available. In addition to these, there is the Encyclopedia of Educational Research(10) that cannot be equalled for its excellent synthesis and evaluation of educational research, plus The Review of Educational Research which publishes triennial summaries of research in this area.

The main purpose in surveying the literature is to report the results gained by others in studying the predictive values of indices which are a part of the data in the present study. For facility in organization and reading, this chapter is divided into two parts. The investigations reviewed in the first part are classified under three headings, or facets, of the problem: (1) the role of intelligence in scholastic performance; (2) the relationship of personality to academic achievement; and (3) the relation of factors other than intelligence and personality that affect achievement, directly or indirectly. The second part deals only with research pertaining to gifted children.

6 Edward Greene, Measurements of Human Behavior, (New York: Odyssey Press, 1952).

7 Leona Tyler, The Psychology of Human Differences, (New York: D. Appleton-Century Co., 1947).

8 C. C. Ross, Measurement in Today's Schools, (New York: Prentice-Hall, Inc., 1954).

9 Anne Anastasi and John P. Foley, Differential Psychology, (New York: The Macmillan Co., 1949).

10 Walter S. Monroe, ed. Encyclopedia of Educational Research, (New York: The Macmillan Co., 1952).

(1) The role of intelligence in scholastic performance

Intelligence has direct significance for achievement as indicated in numerous studies. Gates obtained correlations between the Binet test and certain academic subjects measured by educational tests in grades four through six, as follows: grade four - correlations of .36, .35, and .11 for reading, arithmetic, and spelling, respectively. The following correlations were obtained for the fifth grade: reading .41, arithmetic .25, and spelling .37. He obtained his highest correlations in the sixth grade, where he found correlations of .69, .30, and .45 for reading, arithmetic, and spelling, respectively. There were approximately twenty pupils in each grade, which, of course, is considered a very small sample.(11)

In 1946, Aaron reviewed the results of twenty-four studies which reported correlations between general high school achievement and intelligence. The correlations ranged from .25 to .65, with a median of .48.(12) Similar results were obtained by Cohler who studied a group of superior children in grades six, seven, and eight, and he reported the correlation between achievement and Binet tests to be .58.(13)

11 Arthur I. Gates, "The Correlations of Achievement in School Subjects with Intelligence Tests and Other Variables," Journal of Educational Psychology, 13:129-139; 13:223-225; 13:277-285, (March, April, May 1922).

12 Sadie Aaron, "The Predictive Value of Cumulative Test Results," (unpublished Doctor's thesis, Stanford University, 1946).

13 Milton J. Cohler, "Scholastic Status of Achievers and Non-Achievers of Superior Intelligence," Journal of Educational Psychology, 32:603-610, (November 1941).

In another summary of the relationship between scores on group intelligence tests, verbal and non-verbal, and achievement in various school subjects, Loutitt reported the following medians of the coefficient of correlation: reading .60, arithmetic .55, spelling .51, and handwriting .10.(14)

General Conclusions: The correlation of mental tests with academic achievement tests is relatively high. It appears to vary in relation to what area of achievement is used, i.e., reading, arithmetic, spelling, etc. According to Kelley, however, about ninety per cent of what is measured by a so-called general intelligence test is the same as that measured by an achievement test battery.(15)

(2) The relationship of personality to academic achievement

Numerous studies have used self-report personality tests to predict academic achievement. Notwithstanding the fact that such attempts have been generally unsuccessful, it is deemed important to review some of these as a background to the present study. At the elementary level, Gough found low but consistently negative correlations between the Brown Personality Inventory and five achievement tests in a population of sixth grade children. The tendency was for the more maladjusted pupils in the lower socio-economic groups to se-

14 C. M. Loutitt, Clinical Psychology, (New York: Harpers, 1947).

15 Truman Lee Kelley, Interpretation of Educational Measurement, Yonkers: World Book Co., 1927) p. 208.

cure lower achievement test scores.(16)

In an effort to determine the mental health status and the mental hygiene needs of a group of elementary school children, Brown administered the Mental Health Analysis test to 310 pupils of the fourth, fifth, and sixth grades for which achievement and intelligence test data were available. Results indicated that most pupils with poor mental health also had poor educational achievement, and that most pupils with superior mental health were also superior in educational achievement. Pupils of low intelligence had, as a group, more mental health problems than pupils of average or high intelligence, while most pupils of superior intelligence also enjoyed average or exceptionally fine mental health.(17)

Burke investigated the relationship between measured achievement and certain personality factors in a sample of one hundred children in the fourth and fifth grades. Since there was such slight relationship between academic achievement and every one of the personality factors measured by the California Test of Personality, this investigator concluded that the personality development of these fourth

16 H. G. Gough, "The Relationship of Socio-economic Status to Personality Inventory and Achievement Test Scores," Journal of Educational Psychology, 37:527-540, (December 1946).

17 Irene Brown, "A Diagnostic Study of the Mental Hygiene Needs of a Group of Elementary School Children," (unpublished Master's thesis, Boston College, 1950).

and fifth grade children was not related to their academic success.(18)

Numerous studies have used high school pupils as subjects for investigations into the relationship of personality to academic achievement. The four discussed in this chapter are typical of many others reported in the literature. A sentence completion test was used by Kimball to study the relationship between scholastic under-achievers and certain personality factors. Subjects were twenty adolescent boys of high intelligence who were failing in their school work. Results showed that more than half of the group had essentially negative relationships with their fathers than did a control population. Aggressive feelings were a source of guilt and anxiety more frequently among the under-achievers.(19)

Jensen sought to ascertain some of the differences, if any, between those who achieve more than what might be expected from their intelligence test scores, and those who achieve less than their intelligence test scores indicated might be expected. A battery of achievement and mental tests, and the California Test of Personality were administered to five hundred thirty-six pupils. Results indicated that high ability students under achieve and low ability pupils over achieve. The findings on the California Test of Personality showed nothing that would indicate any relationship between under- and over-achievement

18 William A. Burke, "A Quantitative Study Between the Components of the California Test of Personality and Achievement in an Elementary School," (unpublished Master's thesis, University of Houston, 1949).

19 Barbara Kimball, "The Sentence Completion Technique in a Study of Scholastic Under-achievement," Journal of Consulting Psychology, 16:353-358, (October, 1952).

and scores on this test.(20)

A study by Ames is indicative of the factors which operate to reduce the predictive value of intelligence tests. She studied groups of high school students who had I.Q.'s below the average of their classes, but whose achievement was higher than the average. She found that success in school achievement was related to the abilities to succeed socially and to conform to the school pattern.(21)

In 1949 Gough reviewed several studies that were concerned with the investigation of non-intellectual factors related to achievers and non-achievers and found general agreement that introversion, dominance, self-sufficiency, good motivation, liberal social attitudes, and lack of maladjustment were characteristic of achievers. Items on tests which reflected lack of emotional tension, immaturity, social extraversion, disinclination to admit personal problems and a tendency to see others in a favorable light were found predictive of under-achievement by the various investigators cited in this review.(22)

At the college level Griffith made an investigation to determine the relationship between personality adjustment and scholastic achieve-

20 Gerald Jensen, "Relationship Between School Achievement and Scholastic Aptitude: Techniques for Ascertaining This Relationship, Their Application to Data from a Group of High School Pupils and Their Use in School Practice," (unpublished Doctor's thesis, Stanford University, 1949).

21 Viola C. Ames, "Factors Related to High School Achievement," Journal of Educational Psychology, 34:229-236, (April 1943).

22 H. G. Gough, "Factors Relating to the Academic Achievement of High School Students," Journal of Educational Psychology, 40:65-78, (February 1949).

ment. The first semester point-hour ratio was used as the measure of scholastic achievement and the Bell Adjustment Inventory as a measure of personality adjustment. He found that men of lowest academic achievement were as well adjusted in personality as men with brilliant scholastic records.(23)

On the basis of an item analysis of 519 items, 300 of which were items in the group form of the Minnesota Multiphasic Personality Inventory, Owens and Johnson isolated thirty-eight items which seemed to depict personality traits of collegiate under-achievers. Fifteen of these dealt directly with social adjustment. Under-achievers without exception gave better adjusted or more extroverted responses than the typical normal or over-achiever.(24)

Ellis has been most active in summarizing results of experiments in this field. His conclusion is that most of the attempts to predict academic achievement through the use of attitude, interest, motivation, or personality inventories, have uniformly shown a positive but discouragingly small relationship.(25) (26) (27) This corroborates the

23 George R. Griffith, "Scholastic Achievement and Personality Adjustment," Journal of Applied Psychology, 29:360-367, (October 1945).

24 W. A. Owens and W. C. Johnson, "Some Measured Personality Traits of Collegiate Under-achievers," Journal of Educational Psychology, 40: 41-46, (January 1949).

25 Albert Ellis, "The Validity of Personality Questionnaires," Psychological Bulletin, 43:385-440, (September 1946).

26 _____, "Personality Questionnaires," Review of Educational Research, 17:53-63, (February 1947).

27 _____, "Interests and Attitudes," Review of Educational Research, 17:64-77, (February 1947).

findings of Stagner in a review of similar studies made previous to 1933. He also found only negligible relationships between personality tests and grade averages. Slight tendencies were noted for students with higher scores on the introversion, dominance, and self-sufficiency sections of the Bernreuter Personality Inventory to obtain higher grade averages than those with lower scores.(28)

General Conclusions: The review of the literature dealing with personality tests and achievement is rather disappointing. Most of the attempts to predict academic achievement through the use of attitude, interest, or personality inventories, have shown a positive but negligible relationship.

(3) Factors other than intelligence and personality that affect achievement, directly or indirectly.

When academic achievement in school is considered as a function of the total growth of the child, and not just related to ability or instruction, we are faced with the insurmountable task of even naming all the conditions and pressures that could operate to affect achievement, directly or indirectly. The researches reviewed here are merely suggestive of certain factors that could affect achievement. These include: family or parental attitudes; the ordinal position of a child in his family; the significance of physical growth; changes in interests; and the needs or problems of adolescents.

28 Ross Stagner, "The Relationship of Personality to Academic Aptitude and Achievement," Journal of Educational Research, 26:648-660, (May 1933).

A number of studies have investigated the influence of parental attitudes and family relations. For example, Wallihan studied the causes of variation between ability and achievement in elementary school pupils as a function of parental attitudes. Data were secured by case study techniques for 407 fourth, fifth, and sixth grade pupils whose scholastic achievement indicated appreciable divergence from their measured intelligence and chronological age. Findings indicated that children are motivated into successful living by their parents, and conversely, children learn failure at home. Favorable conditions occur oftenest in a large family. Children who were junior in order of birth to their siblings were most likely to over-achieve.(29)

According to Martin's study, the healthy personality, one that is happy and relatively free from anxieties, was associated with parental attitudes of acceptance, permissiveness, helpfulness, positive and realistic expectancy, and enjoyment in doing things with their parents. Conversely, parental attitudes of rejection, whether directly expressed, or subtle and indirect in their manifestation, created in the child anxiety, apathy or hostility, which may interfere with learning in many ways. Parental pressure on a child to achieve, to be a credit to the family, if accompanied by a lack of real affection and a genuine concern for the child's best development, was often

29 Robert S. Wallihan, "Causes of Variation Between Ability and Achievement in Elementary School Pupils," (unpublished Master's thesis, University of Southern California, 1950).

met with resistance on the part of the child.(30)

Stott in a study of 1,855 farm, small town, and city children, found that the two most important factors in family living and the social life of the home, as they affected the personality development of the children in the family, were the "confidence, affection, and companion-ability" pattern, and the pattern of "family discord" or "parental misconduct". Children from homes characterized by "good" patterns of family life as contrasted to "bad" were better adjusted and more appreciative of family life and were superior in their general personality adjustment.(31)

In a study on the adolescent in the family conducted by the White House Conference on Child Health and Protection, it was concluded that "the outstanding fact emerging from the study is the significance of the home for the personality development of the child. Of paramount influence are the subtle, intangible relations of family life such as affection, confiding in parents, trust and loyalty of the child to his parents, and control by other means than punishment.(32)

The ordinal position of a child in a family has attracted the attention of numerous investigators. For example, Hayes in a study

30 A. R. Martin, "A Study of Parental Attitudes and Their Influence Upon Personality Development," Education, 63:596-608, (June 1943).

31 L. H. Stott, "Personality Development in Farm, Small-town, and City Children," Agriculture Experimental Station Research Bulletin No. 114, (Lincoln, Nebraska: University of Nebraska, 1939).

32 White House Conference on Child Health and Protection, The Adolescent in the Family, (New York: Appleton-Century-Crofts, 1934).

of seventy college women students reports: "Family position may be associated with quite significant differences in personality (as measured by the Bernreuter). The more older siblings a subject had, the more neurotic, the less self-sufficient, and the less dominant she was likely to be."(33) Using the same measure of personality on a sample of four hundred thirty college men, Stagner and Katzoff draw a different conclusion: "The effect of family constellation should be considered as only a small portion of the continuous interaction which determines personality."(34) This point of view is collaborated by Wile and Noetzel who agree in their findings that the "ordinal position is not an especially significant factor in fixing a personality type or in establishing definite forms of difficulty in adjustment or in determining dominant attitudes and responses in human relations."(35)

It is conceivable, however, that achievement is affected, at least indirectly, by the status that an adolescent enjoys with his peers or by a change of attitude on his part toward the opposite sex. In a study of the popularity of seventh and ninth grade boys, Bower found popularity significantly related to strength and physical ability, as judged by a series of track events. Thus, it would appear that physical ability is important in promoting all-round adjustment and social

33 S. P. Hayes, "A Note on Personality and Family Position," Journal of Applied Psychology, 22:347-349, (August 1939).

34 R. Stagner and E. Katzoff, "Personality as Related to Birth Order and Family Size," Journal of Applied Psychology, 20:340-346, (July 1936).

35 I. S. Wile and E. A. Noetzel, "A Study of Birth Order and Behavior," Journal of Social Psychology, 2:52-71, (February 1931).

acceptance for any adolescent boy.(36) Changes in interest in members of the opposite sex were studied by Kuhlen and Lee as related to boys in grades six, nine, and twelve. The trend appears to be one of increasing heterosexual relationships with increasing age for both boys and girls, with boys tending to choose the opposite sex more frequently than did the girls. That there are individual exceptions to the general trend is revealed by the one-fourth who did not choose members of the opposite sex and the one-third who were not chosen by the opposite sex.(37)

The effect that the problems of young people have on achievement is difficult to measure. The kinds of problems most often mentioned are interesting to consider. For example, Bell interviewed over nine thousand Maryland youth and reported their problems to be economic security, educational and vocational choice, home, personal adjustment, and social relations with the opposite sex.(38) Mooney surveyed high school pupils' problems and found them to be in the following order of frequency of mention: future, vocational and educational; finances, living conditions, and employment; adjustment to school work; personal-psychological relations; health and physical development; social and

36 P. A. Bower, "The Relation of Physical, Mental, and Personality Factors to Popularity in Adolescent Boys," (unpublished Doctor's thesis, University of California, 1940).

37 R. G. Kuhlen and B. J. Lee, "Personality Characteristics and Social Acceptability in Adolescence," Journal of Educational Psychology, 34:321-340, (September 1943).

38 H. M. Bell, Youth Tell Their Story, (Washington, D. C.: American Council on Education, 1938), p. 250.

recreational activities; curriculum and teaching procedures; social-psychological relations; home and family; courtship, sex, and marriage; morals and religion.(39)

General Conclusions: There is no conclusive evidence as to the effect that factors other than intelligence have on achievement, directly or indirectly. Of the several suggested in this section, family attitudes and family relations probably have the most far-reaching influence.

SUMMARY

A review of the literature dealing with the relationship between achievement and intelligence shows that the correlation varies with the type of achievement being evaluated. Inasmuch as tests of intelligence measure about ninety per cent of what is measured by an achievement test, it would appear that unless the apparent differences are very great, the existence of true differences cannot be safely inferred.

Attempts to predict achievement by personality tests have met with very little success. Whatever effect personality adjustment has on achievement is apparently indirect. The degree to which use is made of the individual's potentialities is influenced by his personality adjustment and may explain the findings of low correlations. Personality adjustment, as well as favorable familial attitudes and other factors, is an advantage in academic work at some point along the dis-

39 R. L. Mooney, "Surveying High School Students' Problems by Means of a Problem Checklist," Educational Research Bulletin, 21:57-69, (March 1942).

tribution. Varying inter-relations of given variables may result in varying outcomes in terms of achievement. In a particular case, a combination of variables may be operative in a direction favoring scholastic achievement, while in a slightly different situation they may function in the opposite direction. If such is the case, it would seem that we need a new method of studying the relationship between personality and other variables to achievement.

RESEARCH STUDIES ON THE GIFTED

Studies of gifted children were largely descriptive of individual cases and anecdotal in nature until Terman and Hollingworth identified and then analyzed the backgrounds and characteristics of boys and girls of high I.Q. Their investigations represent the first attempts to study large groups of gifted boys and girls. Terman's investigations began in 1921 and have continued to the present time. The "composite picture" which has emerged from his study of some fifteen hundred gifted children stands as a monument to intelligent long-range planning and the devotion of an investigator and his associates to an important psychological and educational problem.

The primary purpose of the Stanford study of gifted children was two-fold: (a) to determine what physical, mental, and personality traits are typically characteristic of gifted children; and (b) to find out by means of long-range follow-up studies how such children develop and, if possible, what factors influence their later achievement. The first published writings on this research were released in 1925 when Terman wrote his book, "Mental and Physical Traits of a Thousand Gifted

Children, Genetic Studies of Genius, Volume I" and this was followed in 1926 by Hollingworth's book, "Gifted Children: Their Nature and Nurture." Both of these books are considered scientifically sound and are basically a foundation for study of the gifted today. The most recent publication in this series is "The Gifted Child Grows Up" written jointly by Terman and Oden.

Four phases of growth seem apparent in this research. The first investigations were seeking a scientific method for identifying the gifted. Secondly, these measurements were applied to describe and find gifted children. This was followed by verification and experimentation in special classes for the gifted.⁽⁴⁰⁾ It now appears that we are in a period of rapid dissemination of knowledge about gifted children and, as a result, educators are concentrating their efforts to offer more adequate educational opportunities for them. Evidence of this awakened concern that has brought about some organized effort to help the gifted child is shown in the work of the American Association for Gifted Children through the publication of the book, "The Gifted Child."⁽⁴¹⁾

Other investigators, among them Witty, Sumption, and Hildreth, have confirmed and extended the findings of Terman and Hollingworth. The Witty studies have covered many of the points studied also by Terman

⁴⁰ Edna E. Lamson, A Study of Young Gifted Children in Senior High School, (New York: Teachers College, Columbia University, 1930) pp. 7-9.

⁴¹ American Association for Gifted Children, The Gifted Child, (Boston: D. C. Heath and Co., 1951).

and his findings have given direct support to the larger researches.(42) Sumption's efforts were directed toward a follow-up study of adults who were formerly members of the Cleveland Major Work Classes, Cleveland, Ohio.(43) In 1941, Hunter College in New York City set up an experiment for the education of the gifted in their elementary school, and the accomplishments of this school are reported by Hildreth.(44) Four reviews and summaries give the findings and conclusions to date: Terman, 1931(45); Terman and Burks, 1933(46); Hollingworth, 1940(47); and Newland, 1953(48).

For facility in reading, the investigations on gifted children are reviewed under the following headings: (1) personality traits; (2) school progress; (3) sex ratio; (4) physical traits; (5) home background; (6) vocational goals; and (7) extra-curricular pursuits and

42 Paul A. Witty, "A Study of One Hundred Gifted Children," University of Kansas Studies in Education, Vol. 1, No. 13, (1930)

43 Merle R. Sumption, Three Hundred Gifted Children, (Yonkers on-Hudson, New York: World Book Co., 1931).

44 Gertrude H. Hildreth, Educating Gifted Children, (New York: Harpers, 1952).

45 L. M. Terman, "The Gifted Child," in C. Murchison, ed., A Handbook on Child Psychology, (Worcester: Clark University Press, 1931).

46 L. M. Terman and B. S. Burks, "The Gifted Child," in C. Murchison, ed., A Handbook on Child Psychology, 2nd ed., (Worcester: Clark University Press, 1933).

47 L. S. Hollingworth, "Review of Research," 39th Yearbook, Part I, National Society for the Study of Education, (Chicago: University of Chicago Press, 1940), pp. 43-66.

48 J. Ernest Newland, "The Gifted," Review of Educational Research Vol. XXIII, (December 1953), pp. 417-431.

interests.

(1) Personality Traits

The personality traits of intellectually superior and gifted children have been appraised by means of various tests and rating scales. A wide range of tests and ratings were used by Terman and his associates. When compared with control children in scores on tests of personal and social standards and ideals (Raubenheimer-Cady Series), the gifted children in Terman's study showed far more favorable social preferences and social attitudes, less boastful behavior, less cheating and considerably greater trustworthiness under stress. Sixty to eighty per cent of the gifted exceeded the median scores on the separate tests of the battery.(49)

From reports by thirty-one teachers of superior children in St. Paul, Minnesota, Laycock found that teachers are in agreement in finding the gifted children above the average in many traits, including courtesy, cooperation, imagination, inquisitiveness, and willingness to take suggestions. These children showed a keen sense of humor and were not inclined to become discouraged. Contrary to popular opinion, they were not considered especially forward, domineering, egotistical, or self-willed.(50) The findings of Carrol support the study by Laycock.

49 Lewis M. Terman, Mental and Physical Traits of a Thousand Gifted Children, Genetic Studies of Genius, Vol. I, (Palo Alto: Stanford University Press, 1923).

50 S. R. Laycock, "Adjustments of Superior and Inferior School Children," Journal of Social Psychology, 4:353-366, (August 1933).

Carrol's study showed that gifted children of nine years equalled an average child of fourteen years in character development.(51)

Lewis administered the Kuhlmann-Anderson Intelligence Test and a personality questionnaire to children believed to be "extremely mentally retarded," of "genius" caliber, and "distinct problems." A study of the personal inventory results and background factors revealed no basis for selection in any of the groups. Those selected as "geniuses" gave evidence of an ability to adjust to classroom situations, desirable personal characteristics, and superior academic achievement.(52)

Two studies of gifted children referred to child guidance clinics in England are reported in the literature. One by Burns is a study of sixty-seven superior elementary and high school pupils referred to the Birmingham (England) Child Guidance Clinic over a period of five years. He found a statistically significant sex difference in the referrals: twenty-one boys and three girls of I.Q. 135 and above, and thirty boys and seventeen girls between I.Q.'s 116 and 134.(53) The other is reported by Nevill who made a study of the emotional problems of some thirty-eight gifted children brought to the Psychological Center for

51 H. A. Carrol, "Intellectually Gifted Children: Their Characteristics and Problems," Teachers College Record, 42:212-227, (December 1940).

52 W. Drayton Lewis, "Some Characteristics of Children Designated as Mentally Retarded, as Problems, and as Geniuses by Teachers," Journal of Genetic Psychology, 70:29-51, (March 1947).

53 C. L. Burns, "Maladjusted Children of High Intelligence," British Journal of Educational Psychology, 19:137-141, (June 1949).

School and Home whose I.Q.'s ranged from 140 to 180. She drew these general conclusions: (1) Many of their difficulties were due to mis-handling at home or at school and a number of their problems resembled those of normal children; (2) Eighteen out of the thirty-five which were considered "difficult" cases were highly nervous, sensitive, and over-anxious, and at least ten were refusing to go to school because they were unhappy there; (3) Social maladjustment was noted in fifteen cases; (4) The fact of brilliance did not appear to lessen the occurrence of jealousy and other personal difficulties of adjustment; and (5) Only three of the children were recognized as severe neurotic cases. The study also emphasized that the difficulties inherent in brilliance do not necessarily create maladjustment. In certain circumstances, brilliant children may come to feel inferior and react accordingly.(54)

Ausubel studied experimentally the nature of intrinsic and prestige motivation of seventy-nine sixth grade children with I.Q.'s of 130 and above. He found a normal range of responsiveness to a prestige incentive. He further concluded that children who were most responsive to a prestige incentive more frequently set up a self-imposed competition with neighbors, and in other ways appeared more competitive.(55)

54 Mildred E. Nevill, "Brilliant Children: With Special References to Their Particular Difficulties," British Journal of Educational Psychology, 7:247-258, (November 1937).

55 David P. Ausubel, "Prestige Motivation of Gifted Children," Genetic Psychology Monographs, 43:53-117, (February 1951).

(2) School Progress

In terms of mental age and of tested educational accomplishment, Terman's group of gifted children was far below the appropriate placement. The mean progress quotient (grade age divided by chronological age) was 114. The most important findings were: (1) The superiority of the gifted children of a given age over unselected children of corresponding age amounted in most cases to from three to four times the standard deviation of the unselected age group; (2) In general, the average gifted child mastered the subject matter to a point forty per cent above his chronological age, although he was held back to a grade location only fourteen per cent beyond the norm of his chronological age. This meant that most of them during the elementary school period were kept at school tasks two or three full grades below the level of achievement they had already reached; (3) The superiority of the gifted is greatest in general information, language usage, and reading, and least in history and spelling; and (4) Gifted boys excelled gifted girls in general information, arithmetic, and spelling. The girls of age ten and above are slightly superior to boys in language usage.(56)

DeVoss made a careful study of the specialization of ability in achievement test scores. He concluded that the achievement profiles of the gifted are like those of average children in that they show real and varied differences between their abilities in school subjects, but on a very much higher level than other children. For example, typically good readers tend to be relatively deficient in

56 Terman, op. cit., p. 306

arithmetical computation.(57)

For Witty's group of gifted children, the mean progress quotient was 116. His group also revealed a retardation in grade placement. The sixth grade pupils exceeded average eighth grade children in the composite results from the Stanford Achievement Test. The seventh grade group exceeded ninth grade standards in all subjects. In general, the children had a knowledge of educational subject matter at least two years in excess of their grade placement.(58)

On the basis of a questionnaire study of high school students showing a disparity between their capacities and their achievements, Bond found that the bright students had a tendency to spend a disproportionate amount of time on courses they like best, and that they had poor study habits acquired in earlier grades where success came very easily.(59)

(3) Sex Ratio

Among elementary gifted school children, Terman found a ratio of 121 boys to 100 girls in 643 pre-school and elementary school children. His high school group of two hundred gifted boys and one hundred nine girls offered an even larger numerical sex contrast than

57 James C. DeVoss, "Specialization of the Abilities of Gifted Children," in Lewis M. Terman, *Genetic Studies of Genius*, Vol. 1, pp. 307-362.

58 Witty, *op. cit.*, pp. 18-19.

59 Jesse A. Bond, "Analysis of Factors Adversely Affecting Scholarship of High School Pupils," Journal of Educational Research, 46:1-15, (September 1952).

his younger population.(60) In contrast, Witty's group of gifted children numbered fifty-one boys and forty-nine girls. His 1934 group test results for I.Q.'s 140 and upwards in high school populations, however, were more in accord with Terman's findings in that the boys outnumbered the girls.(61)

(4) Physical Traits

Terman found his gifted group superior to the age norms in thirty-four anthropomorphic measurements, including weight, height, general physical development, and muscular energy. Age for age, they exceeded the developmental norms for average children. Of the 282 girls in his original group, forty-five were judged tall, 206 medium, and 29 short. Forty-four of the 312 superior boys were judged tall, 233 medium, and twenty-nine short. Of the boys, 176 were judged of normal weight for height, 89 overweight, and 42 underweight. Of the girls, 143 are of normal weight for height, 88 over-weight, and 51 underweight.(62)

Similar findings were obtained by Witty. Ninety per cent of his group were judged to have good or excellent health. With reference to height and weight, the gifted children were superior to average children in their physical development.(63) Hollingworth also found

60 Terman, op. cit., pp. 49-54.

61 Witty, op. cit., p. 62.

62 Terman, op. cit., pp. 145-146.

63 Witty, op. cit., p. 16.

gifted children generally larger and stronger than their age-peers.(64)
 In a different study, Hollingworth and Taylor's data for forty-five gifted Jewish children in New York City were in agreement with other results with respect to height, and showed, in a comparison of their results with norms for average and feeble-minded children, that a positive intelligence-height relationship was present. The height of these children measured year by year for a six year period continued on the average about five per cent above the norm.(65)

(5) Family Background

In Terman's group of gifted children, thirty-one per cent of the fathers were professional; fifty per cent, semi-professional or in business; twelve per cent, skilled laborers; and less than seven per cent, semi-skilled or unskilled.(66) There were only ninety-one completed families in Terman's original group of gifted children. A completed family is one in which the mother is forty-five years or older. His data showed an average number of children of 3.40 to a family.(67)

In Witty's group of one hundred gifted children, sixty-four per cent of the fathers were in business; thirty-four per cent were professional. When this study was made, the average yearly income of the

64 L. S. Hollingworth, Gifted Children: Their Nature and Nurture, (New York: Macmillan, 1926).

65 L. S. Hollingworth and G. A. Taylor, "Size and Strength of Children who Test Above 135 I.Q.," 23rd Yearbook, Part I, National Society for the Study of Education, (Chicago: University of Chicago Press, 1924), pp. 221-237.

66 Terman, op. cit., p. 64.

67 Terman, op. cit., p. 113.

fathers was \$3300 as compared to \$2000 for the fathers of the control group.(68) In Witty's group, twenty-two per cent of the children were "only" children. The number of children per family was 2.32, somewhat lower than the average found by Terman. The gifted children were found to fall into the following classification in order of birth: first born, 53.1%; second born, 31.9%; and third born, 8.5%.(69)

(6) Vocational Goals

The vocational ambitions of the gifted children in Terman's study as compared to those of his control group rate one and a half to two and a half points higher on the Barr Scale, a significant difference for the group as a whole. In the gifted group the preferred occupation rates nearer to the occupational status of the fathers than in the control group.(70)

(7) Extra-curricular Pursuits and Interests

Terman states that his gifted children were somewhat less interested than his control group in the more active, competitive games and somewhat more interested in intellectual and quiet activities. Sex differences rather than intellectual differences largely determined the trend of activity choices, yet a real contrast was shown between the gifted and unselected children in the number of collections made at all ages from six to thirteen. The gifted made about twice as many collections as the control, and the number of these having scientific

68 Witty, op. cit., p. 9.

69 Witty, op. cit., p. 11.

70 Terman, op. cit., pp. 383.

interest and value was twice as large.(71) The gifted children in Witty's study were found to play alone slightly more than average children. The gifted group engaged more frequently in and preferred activities involving reading. They tended to avoid certain types of vigorous contact sports.(72)

SUMMARY

From the foregoing review of research on gifted children, it may be seen that as a group their deviation from the general population is in the upward direction for nearly all traits. As compared to unselected children, they are less inclined to boast or cheat, and their social preferences and attitudes are considered more wholesome. Educationally, they are accelerated in grade placement in the mastery of subject matter and are usually two to three full grades below the level which they have already attained in school subjects. Their physical growth exceeds the developmental norms for average children. In terms of family background, their fathers' occupations usually fall within the professional and business groupings. Gifted children engage more frequently in reading activities than average children and somewhat less often in extremely active type of sports and games. They have a greater tendency to spend their time on solitary interests than average children. Boys outnumber girls in most groups of gifted children.

71 Terman, op. cit., pp. 385-439.

72 Witty, op. cit., p. 22.

Chapter III

SOURCE OF DATA

The ninety-nine boys and girls who are the subjects of this study are all pupils from junior high schools in or near Columbus, Ohio. Everett and Crestview Junior High Schools are in the Columbus school system; Bexley, Upper Arlington, and Worthington Junior High Schools are located in suburbs of Columbus. The University School is an experimental school affiliated with The Ohio State University, and though children of professors attend here, they represent only a minority in the total school population. A concerted effort is made to obtain a fairly heterogenous population.* Table I shows the number and per cent of intellectually superior children drawn from the eighth grade populations of each of the above named schools in the spring of 1954 for subjects of this study.

* Referring to the mental ability of graduates from The Ohio State University School and other public high schools, Reynard says, "Viewing the average I.Q. score of The Ohio State University graduates in the light of the average I.Q. scores found in studies ... of other school groups permits one to conclude that the average of the mental abilities of the University School students ... lies within the range of averages determined for several other high school graduate groups ..." (Harold E. Reynard, A Follow-up Study of Selected Groups of Graduates of The Ohio State University School, (unpublished Doctor's thesis, The Ohio State University, 1954), p. 91).

TABLE I
Number and Per Cent of Gifted from
Total Eighth Grade Populations

Schools:	Total 8th Gr. Population	No. Poten- tially Gif- ted	Per cent
Bexley	156	12	7.7
Crestview	307	34	11.0
Everett	323	11	3.4
University	34	9	26.4
Upper Arlington	155	12	7.7
Worthington	133	21	15.8

As shown in Table I, the schools having the greatest number of intellectually superior children in their eighth grade populations as of May, 1954 are, in rank order: The University School, Worthington, Crestview, Upper Arlington, Bexley and Everett Junior High Schools. Percentage-wise, the range is from 3.4 per cent to 26.4 per cent.

Age: In Table II the distribution of chronological ages is broken down by sex. The median age for boys is 13 years, 8 months; for girls, 13 years, seven months.

TABLE II
Distribution of Boys and Girls by
Chronological Age

Schools	12-8 to 13-0		13-1 to 13-6		13-7 to 14-0		14-1 to 14-6	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Bexley	0	0	2	1	4	2	3	0
Crestview	1	3	4	6	10	7	1	2
Everett	1	1	0	2	1	4	1	1
University	0	0	2	2	2	2	0	1
Upper Arlington	0	0	0	1	5	2	3	1
Worthington	1	2	4	2	3	5	2	2
Totals	3	6	12	14	25	22	10	7

In this group of potentially gifted children, Table II shows that the boys tend to be older than the girls. At Upper Arlington, thirty-three per cent of the gifted children at the eighth grade level are fourteen years of age or over as compared to approximately nine per cent at Crestview. Percentage-wise Everett has the largest per cent of children thirteen years of age or under in the total population under study.

Sex Ratio: The number of boys as compared to the number of girls in this study is approximately equal.* The sex ratio, however, varies considerably between schools. For example, at Upper Arlington, eight or sixty-seven per cent are boys as compared to three or twenty-seven per cent girls. The reverse is true at Everett Junior High School. At Crestview, Worthington and The University School, the number of boys and girls are fairly equally distributed. Table III gives the sex distribution of our population by schools.

TABLE III
Distribution of Children by Sex and School

Schools	Boys	Girls	Total
Bexley	9 (75%)	3 (25%)	12
Crestview	16 (47%)	18 (53%)	34
Everett	3 (27%)	8 (73%)	11
Upper Arlington	8 (67%)	4 (33%)	12
University	4 (44%)	5 (56%)	9
Worthington	10 (48%)	11 (52%)	21

NOTE: This table should be read as follows:
Four or 47% of the sample population of
eleven pupils from University School were
boys as compared to five or 56%.

* No attempt was made to select an equal number of boys and girls for this study; the results were purely coincidental.

I.Q.'s: The distribution of intelligence quotients of the ninety-nine subjects by sex and schools is given in Table IV. The mean I.Q. for boys is 135.6; for girls, 129.3; and 134 for the total population. The median I.Q. for boys is 133; for girls, 131; and 132 for the total population. Boys show a slight intellectual superiority in this group of potentially gifted children but the difference is not significant.

TABLE IV
Distribution of Children by Intelligence Quotients

Schools	120-124 inc.	125-129 inc.	130-134 inc.	135-139 inc.	140-149 inc.	150 +
Bexley	_____	3 Boys	4 Boys 3 Girls	2 Boys	_____	_____
Crestview	_____	_____	6 Boys 7 Girls	3 Boys 9 Girls	4 Boys	3 Boys 2 Girls
Everett	_____	1 Boy 2 Girls	1 Boy 4 Girls	1 Boy 2 Girls	_____	_____
University	1 Boy 1 Girl	4 Girls	1 Boy	_____	1 Boy	1 Boy
Upper Arlington	_____	2 Girls	3 Boys 2 Girls	3 Boys	2 Boys	_____
Worthington	3 Boys 5 Girls	2 Girls	4 Boys 2 Girls	2 Boys 1 Girl	1 Boy 1 Girl	_____
Totals	10	14	37	23	9	6

Physical Growth: The data concerning physical growth is given in Table V. The findings are based on the growth pattern of each

subject in this study as plotted on the Wetzel Grid Chart.(1)(2)

In using the Grid, weight is first plotted against height in order to obtain estimates of a child's shape and size, and only thereafter is size, i.e., level of development, plotted against age. The Grid shows the developmental level of the child at the moment, i.e., his speed of development. If the development of a particular child is comparable to the developmental level at a given age for sixty-seven per cent of the general population, his development is considered average. Those whose development falls at one extreme or the other of the normal curve are designated as showing growth below normal expectation, or as showing growth beyond normal expectation, the latter tending sometimes toward obesity.

The data in Table V show that the physical development of 44 per cent of the experimental group is beyond normal expectation in comparison to their peers. The exact number whose accelerated development tends toward obesity is not known. Only five subjects showed physical development below normal expectation.

1 Norman C. Wetzel, "Physical Fitness in Terms of Physique, Development and Basal Metabolism," Journal of American Medical Association, 116: 187, (March, 1941).

2 _____, The Treatment of Growth Failure in Children, (Cleveland, Ohio: National Education Association Service, Inc., 1948).

TABLE V
Children Grouped According to Their
Developmental Levels

Schools	<u>Below Expectation</u>		<u>Normal</u>		<u>Beyond Expectation</u>	
	Boys	Girls	Boys	Girls	Boys	Girls
Bexley	1		2	1	6	2
Crestview		1	9	9	7	8
Everett		1	2	5	1	2
University		1	2	1	2	3
Upper Arlington			6	1	2	3
Worthington	1		6	6	3	5
Totals	2	3	27	23	21	23

Fathers' Occupations: The occupational status of the fathers of our gifted children are given in Table VI. Almost half of this group come from homes where the father's occupation falls within the professional group. The fathers of an additional thirty-three subjects have occupations that are considered managerial in nature. The socio-economic status of these two groups is probably comparable. This means that approximately seventy-five per cent of the total population in the study come from homes whose socio-economic status is likely to be above average. No child was found in any of the schools selected for the study whose father's occupation would be

classified as unskilled.

TABLE VI
Fathers' Occupations According to
Socio-economic Groups

Schools	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Bexley	6	5		1		
Crestview	15	8	1	7	1	
Everett	1	2		6	2	
University	6	2		1		
Upper Arlington	6	4		1	1	
Worthington	8	12		1		
Totals	42	33	1	17	4	

NOTE: This classification has the following groupings: (1) professional persons (2) proprietors, managers and officials (3) clerks and kindred workers (4) skilled workers and foremen (5) semi-skilled workers (6) unskilled workers. (3)

3 Alba M. Edwards, Population: Comparative Occupational Statistics for the United States, 1870 to 1940, (Washington: Bureau of the Census, U.S. Department of Commerce, 1943), pp. 175-182.

Sibling Status: Table VII shows the ordinal position in the family of each subject in this study. Seventy-seven of this group of intellectually superior children have one or more siblings. Twenty-two are "only" children.

TABLE VII
Sibling Status

Schools	Only Child	Youngest Child	Oldest Child	Middle Child
Bexley	2	3	5	2
Crestview	9	6	12	7
Everett	3	1	5	2
University	2	1	5	1
Upper Arlington	3	3	3	3
Worthington	3	3	10	5
Totals	22	17	40	20

Family Size: Data regarding the size of the family from which our subjects come are presented in Table VIII.* The mean number of children per family is 2.37; the median number is 2.

* The data do not show the number of completed families, if we count as completed a family in which the mother is forty-five years old or older.

TABLE VIII
Family Size
Number of Children in Each Family

Schools	1	2	3	4	5	6	7
Bexley	2	6	5				
Crestview	9	10	10	4		1	
Everett	3	2	4	2			
University	2	4	2	1			
Upper Arlington	3	4	2	2		1	
Worthington	3	10	5	2			1
Totals	22	36	27	11		2	1

NOTE: This table should be read as follows:
At Bexley two subjects are "only" children;
six are from families having two children;
and five are from families having three
children.

Travel Experience: Table IX shows the approximate number of states travelled in by each subject. As a group, subjects from The University School have travelled the most as contrasted with the subjects from Everett Junior High School who have had the fewest opportunities to travel. The median number of states travelled is eleven.

TABLE IX
Travel Experience
Number of States Travelled

Schools	1-6 States	7-12	13-24	25-36	37-48	Medians
Bexley	2	4	2	4	0	16
Crestview	7	12	11	4	0	12
Everett	7	0	2	0	2	5
University	0	3	2	2	2	23
Upper Arlington	2	2	3	4	1	16
Worthington	7	8	2	3	1	8
Totals	25	29	22	17	6	

NOTE: This table should be read as follows:
From Bexley two children have travelled in
one to six states; four children have
travelled in at least seven states but no
more than twelve; etc.

School Achievement: Means and medians for the California Achievement Test were computed from the scores of the ninety-nine boys and girls who are the subjects of the present study. Separate distributions are shown in Table X for reading, arithmetic, and language. The means and medians represent grade placement.

The data show that reading achievement in relation to actual grade placement for the total population is accelerated by approxi-

TABLE X

Means and Medians of Achievement Test Scores by Sex and School

	Means		Medians	
	Boys	Girls	Boys	Girls
<u>Reading</u>				
Bexley	10.8	10.5	10.8	10.6
Crestview	10.7	10.4	10.6	10.4
Everett	10.0	10.1	9.8	10.15
University	10.4	10.2	10.25	10.4
Upper Arlington	10.4	10.4	10.5	10.45
Worthington	10.7	10.5	10.85	10.5
Total Population by Sexes	10.6	10.4	10.6	10.4
Total Population	10.5		10.5	
<u>Arithmetic</u>				
Bexley	11.0	11.0	10.8	11.0
Crestview	10.7	9.8	10.9	10.25
Everett	9.5	10.1	9.8	10.2
University	10.1	10.7	10.85	10.5
Upper Arlington	11.0	11.0	11.0	11.0
Worthington	10.8	10.3	10.85	10.8
Total Population by Sexes	10.7	10.2	11.0	10.6
Total Population	10.5		10.8	
<u>Language</u>				
Bexley	10.7	10.9	10.8	10.9
Crestview	10.2	10.6	10.4	10.8
Everett	9.1	10.6	8.8	10.35
University	8.6	8.5	8.9	8.4
Upper Arlington	10.9	9.8	10.9	9.9
Worthington	9.8	10.5	10.25	10.5
Total Population by Sexes	10.1	10.2	10.3	10.6
Total Population	10.2		10.5	

mately sixteen school months. This means that reading achievement is above the norm for actual grade placement by about a grade and a half. No evaluation of achievement in relation to mental age is implied here. There is a year's difference in the reading level of

the boys at Everett as compared to the boys at Worthington as evidenced by the median for boys of 9.8 at Everett and 10.85 at Worthington. The means and medians for the total population show that boys are slightly superior to girls in reading achievement.

With reference to arithmetic achievement in relation to actual grade placement, the group as a whole shows an acceleration of approximately eighteen school months. This means that arithmetic achievement is above the norm for actual grade placement by over a year and a half. In comparing groups by schools and by sex, the data show a range in medians from 9.8 to 11.0 in grade placement. Boys show a definite superiority over girls in arithmetic achievement.

The data show that language achievement in relation to actual grade placement is accelerated for the total population by about thirteen school months. Both boys and girls at The University School fell below the norm for actual grade placement. The median for boys at Everett was also below grade norm.* In general, girls show a slight superiority to boys in language achievement.

* It is doubtful whether the language test has curriculum validity in terms of measuring what is actually taught. The test stresses mechanics of English and spelling. The instruction in these areas of language usage tends to be less formalized in many language art programs today.

TABLE XI

Means of Achievement Test Scores for the
Ten Highest and Ten Lowest I.Q. Subjects

	Upper I.Q. Group	Lower I.Q. Group
Reading	10.7	10.2
Arithmetic	10.6	9.8
Language	11.0	9.3

The mean of the ten highest I.Q.'s in the study is 153.4 as compared to 121.4 for the lowest ten I.Q.'s. Table XI shows the differences in the academic achievement of these two groups. The superior group definitely excels in language achievement but the differences between the two groups in reading and arithmetic is not nearly so marked. A comparison shows that the superior group is only five months advanced in reading and eight months advanced in arithmetic beyond the less able group whose mean I.Q. is some 32 I.Q. points less.

Preferences for School Activities: The data with regard to what was each subject's first preference in school activities are presented in Table XII. In general, boys make intellectual choices more frequently than do girls. Science or mathematics stand out as first choices for sixty per cent of the boys in this sample of intellectually superior children. Since school programs vary so greatly, Table XII should be interpreted with caution. It only suggests trends in pupils' preferences for school activities.

TABLE XII
Preferences for School Activities

	Bex- ley		Crest- view		Ever- ett		Univer- sity		Upper Arl.		Worth- ington		Totals	
	B	G	B	G	B	G	B	G	B	G	B	G	B	G
<u>Intellectual</u>														
<u>Choices</u>														
Science	3	1	6		1	1	5						15	2
Civics			3	4		1					1		3	6
Math	5		3	3	1	1	1	2	1	1	4	2	15	9
History			2		1				2		1	3	6	3
English	1		1	4		1			3	1		4	5	10
Totals	9	1	15	11	3	4	6	2	6	2	5	10	44	30
<u>Non-Intellec- tual Choices</u>														
Art			1	3		1			1				2	4
Sewing				1									0	1
Music				2							1		0	3
Dramatics						2				1			0	3
Typing						1							0	1
Home Econ.								3					0	3
Gym		2		1			3		1	1			4	4
Totals		2	1	7	0	4	3	3	2	2	0	1	6	19

NOTE: This table should be read as follows: three boys and one girl showed a preference for science at Bexley; six boys at Crestview mentioned science; one boy and one girl at Everett showed a preference for science, etc.

Preferences for out-of-school activities: Some idea of the preference which intellectually superior adolescents express for a variety of out-of-school, free time activities is shown in Table XIII. Sports are favored by both sexes. Club or social activities are more frequently mentioned by girls. Almost twenty per cent of the sample population prefer to engage in activities that are essentially individual in nature.

TABLE XIII

Preferences for Out-of-School Activities

	Bexley		Crestview		Everett		University		Upper Arl.		Worthington		Total
	B	G	B	G	B	G	B	G	B	G	B	G	
<u>Contact Sports</u> baseball, football, wrestling etc.	2	0	6	0	2	3	2	1	6	0	3	1	26
<u>Other Sports</u> tennis, riding, swimming, track, skating, etc.	1	3	3	2	1	3	0	1	1	3	4	4	26
<u>Club Activities</u> Boys and Girls Scouts, Job's Daughters, Luther League, dances, etc.	3	0	2	13	1	0	1	2	0	1	1	5	19
<u>Individual Activities</u> Stamp collecting, piano, movies, radio, models, etc.	3	0	5	3	0	1	1	1	1	0	2	1	18

NOTE: This table should be read as follows: two boys at Bexley showed a preference for contact sports; six boys at Crestview mentioned contact sports; etc.

TABLE XIV
Choice of Vocational Goals:
According to Socio-economic Groups:

Schools	No Choice	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Bexley		11	1				
Crestview	3	27	1	1	2		
Everett		7	1	3			
University	2	5		2			
Upper Arlington	3	8				1	
Worthington	2	13	2	4			
Totals	10	71	5	10	2	1	

NOTE: This classification has the following groups: (1) professional persons (2) proprietors, managers, and officials (3) clerks and kindred workers (4) skilled workers and foremen (5) semi-skilled workers (6) unskilled workers. (4)

Vocational Goals: The moderately gifted show greatest preference for professional occupations. The data are shown in Table XIV. Seventy-one subjects have named some profession as their vocational goal. Inasmuch as only forty-two fathers are professional persons themselves (see Table VI, P. 45), the data indicate that many

intellectually superior adolescents are striving for a socio-economic status that excels that of their fathers. A comparison between thirty-three fathers having occupations of a managerial nature to the fact that only five subjects in our group chose this level of employment indicates a high level of aspiration for this population, thus reflecting their own value system and probably that of their parents. It should be noted that ten per cent of our population expressed no choice.*

Psychological Needs: The reasons why adolescents do the things they do is a matter of great interest and sometimes of serious concern to persons having frequent contacts with them, whether in a professional or a non-professional capacity. The needs questionnaire used in this study yields the measure of need-satisfaction that each subject felt in relation to the following eight broad need categories: (1) achievement, (2) affection, (3) conformity, (4) dependence, (5) heterosexual relationships, (6) independence, (7) mastery-dominance, and (8) recognition. An item tabulation of their responses to this 90-item need questionnaire showed that:

99% of the sample group indicated that their parents show them in many ways that they love them;

*A summary of the occupational interests expressed by a group of junior high school pupils can have, of course, only a suggestive value. In expressing any specific suggestion, the adolescent is handicapped, first, in having a limited understanding of himself, and second, because his knowledge about many occupations is likely to be vague or inaccurate.

88% said that they usually succeed when they work hard for what they want;

86% thought their families approve of most things they do;

83% agreed that their teachers give them praise now and then;

82% enjoy doing many things together with their families;

80% do most of the things they are supposed to do; and

76% are bothered if they don't do their best.

With reference to their interpersonal relations with other people:

48% are not sure that their crowd think they are swell persons to have around;

46% are not sure that the fellows (or girls) in their crowd think a lot of them;

46% are not sure that their teachers feel they are fine persons; and

41% are not sure as to whether the boys and girls seldom say anything bad about them.

A study of the items above suggests that the majority of this group of potentially gifted children feel emotionally secure with their parents and teachers. Almost fifty per cent of this group, however, are not sure of their relationship with peer-groups. The data do not show to what extent problems of personal adjustment exist, real or imaginary.

SUMMARY

A composite picture from the foregoing sections shows the "typical" subject of this study to be an adolescent, thirteen years, eight months old, whose I.Q. is approximately 132. In comparison to his age-peers, his physical development shows growth beyond normal expectation. His father is a professional person and his family includes one other sibling besides himself. He has travelled in about eleven states of this country. At school, his levels of reading and language achievement are approximately sixteen school months beyond actual grade placement. In arithmetic, this record is excelled by three months. His preferences in the school curriculum are in the "thought" subjects but he prefers sports to other out-of-school activities. He relates well with his parents but feels somewhat insecure with his peers. A profession of some kind represents his vocational goal.

This composite picture of the "typical" subject of this study has value only in that it calls to attention certain central tendencies. Our problem now is to study the individual differences that exist in a group of intellectually superior adolescents.

Chapter IV

METHODOLOGY

The purpose of this investigation is to determine some factors that may account for the differences in the academic achievement level in a group of intellectually superior eighth grade pupils. The intermediate form of the California Achievement Battery, the secondary series of the Mental Health Analysis, a needs questionnaire developed by the Ohio Youth Survey, and a general information sheet are the primary source of data. This chapter deals with a description of these instruments, a discussion of how the sample group was selected, and the conditions under which the instruments were administered: the last section pertains to the treatment of the data.

The California Achievement Battery: This battery of tests is a revision of the 1943 Progressive Tests published by the California Test Bureau. The test is available in four levels - from the primary grade to junior college. It consists of three parts, a test each in reading, arithmetic, and language. The total testing time for the three tests in the battery is approximately two hours and a half. More than fifty thousand subjects form the basis of its standardization. Reliability coefficients of the separate tests are above .90 in each instance. The manual of directions provides percentile norms.

In a critical appraisal of the California Achievement

Battery, Findley said: "These tests may be hailed ... for the general suitability of their material to the grades for which they are intended ... and for the effort to provide a continuous measurement of growth in basic skills from primary through junior college."

(1)

The reading test is divided into two parts: Reading Vocabulary and Reading Comprehension. The ninety items in the vocabulary section have been grouped into areas of mathematics, science, social science and general reading. Reading comprehension is divided into three sections: Following Directions, Reference Skills and Interpretation of Meanings. The latter section measures a pupil's ability to comprehend facts, select central ideas, and to make inferences and deductions from reading materials.

The arithmetic test covers both arithmetic reasoning and arithmetic fundamentals. The arithmetic reasoning test consists of four sections: number concepts, symbols and rules, numbers and equations, and problems. In turn the arithmetic fundamentals test is divided into four sections: addition, subtraction, multiplication, and division. Emphasis in the entire test is put on functional understanding of numbers.

The language test which comprises the third part of the California Achievement Battery consists also of two parts: the

1 Oscar K. Buros, The Fourth Mental Measurements Yearbook, Highland Park, New Jersey: The Gryphon Press, (1953), p. 2.

mechanics of English, and grammar and spelling. The section on mechanics of English includes capitalization and punctuation.

Mental Health Analysis: This test was devised by Louis P. Thorpe and Willis W. Clark* and published by the California Test Bureau with the stated purpose of providing: "(1) a means for the identification of mental health difficulties, (2) assistance in the understanding of their significance and implications, and (3) suggestions for eliminating or alleviating such difficulties."
(2)

The instrument reveals a number of mental health liabilities which are described as: (a) behavioral immaturity, (b) emotional instabilities, (c) feelings of inadequacy, (d) physical defects, and (e) nervous manifestations. A second set of one hundred questions is designed to identify certain personality assets. These are designated as: (a) close personal relationships, (b) interpersonal skills, (c) social participation, (d) satisfying work and recreation, and (e) adequate outlook and goals.

The reliability coefficients of the total score (.954) and of the two section scores, mental health liabilities (.924) and

*Thorpe and Clark are also the authors of the California Test of Personality.

2 California Test Bureau, Manual of Directions, Mental Health Analysis, Secondary Series, (Los Angeles, California: California Test Bureau, 1946), p. 2.

mental health assets (.906) are considered high for a personality inventory.

Each of the two hundred questions is answered by circling YES or NO. A coding system prevents the examinee from discovering the exact nature of the analysis. The questions in each category are scattered throughout the inventory.

Only four of the subtests of this test are included in the data of this study. The names and definitions of these four categories, as found in the Manual, are given below. The items in each of these categories have been extirpated from the test and listed.

(1) Behavioral Immaturity

The behaviorally immature individual reacts on the basis of childhood (infantile) ideas and desires. He has not learned to assume responsibility for, or to accept the consequences of his own acts. He attempts to solve his problems by such childish methods as sulking, crying, pouting, hitting others, or pretending to be ill. He has failed to develop emotional control and thinks primarily in terms of himself and his own comfort.

1. Have you found that you get the best results if you pay little attention to other people's feelings?
2. Are many people so unfair that you have to treat them badly?
3. Have you found that if you want to be comfortable you cannot depend on others to assist you?
4. Have you found that many people are so unreasonable as to expect you to keep your feelings to yourself?

5. Have you found that it pays to tell others right out concerning things you don't like about them?
6. Do you prefer doing things on the spur of the moment without stopping to think about them?
7. Have you found that you can get things quicker by insisting on what you want?
8. Have you found that other peoples' feelings are too easily hurt by things you say?
9. Have you found that if you don't beat them to it someone else will usually take the biggest share of things?
10. Have you been able to get even with people you dislike by refusing to speak to them?
11. Do you avoid people who try to keep you from doing the things you like?
12. Have you found that staying away from home is a good idea when someone has been unfair to you?
13. Do you get results by telling people who disagree with you what is wrong with their ideas?
14. Do you find it works to get angry at people who say things about you that are not true?
15. Do you often have so much trouble that people should show more sympathy for you than they do?
16. Do you find that accidents and injuries hurt you much more than they do most people?
17. Do many people pay so little attention to your needs that you must quarrel with them?
18. Do you complain because you are expected to do too many things?
19. Have you found that you can often get out of trouble by stretching the truth a little?
20. Are you usually quick enough to get the best seat at a program or other gathering.

(2) Feelings of Inadequacy

The inadequate individual feels inferior and incompetent. This feeling may be related not only to particular skills or abilities but may be general in nature. Such a person feels that he is not well regarded by others, that people have little faith in his future possibilities, and that he is unsuccessful socially. He feels that he is left out of things because he is unattractive and because he lacks ability.

1. Have you often felt that you need more courage than other people if you are to succeed?
2. Do most of your friends do things better than you can?
3. Have you noticed that some good usually comes of it when you fail in something?
4. Are people so unfair in their demands that you must make a good many excuses?
5. Are people that you would like as friends usually difficult to win?
6. Do you get along best if members of your family help you with most of your problems?
7. Do most of your classmates manage to get along in school better than you do?
8. Do you feel that members of your family do not think as well of you as they should?
9. Do people often claim that you have not done your work as well as you should?
10. Do your classmates seem to think that their ideas are better than yours?
11. Have you felt that most of your classmates think they are better looking than you?
12. Have you found that many people make the mistake of acting as if they cannot depend on you?
13. Have you found that you do best in school when you receive considerable help from your teachers?

14. Have you found persons of the opposite sex are hard to get along with?
15. Do people often seem to think that you are not as intelligent as you really are?
16. Have you often felt that you were left out of the things you would like to do?
17. Have you found that most people manage to get more attention than you do?
18. Do you feel that most people manage to get more attention than you do?
19. Have you found that it pays to tell people about the many things you have accomplished?
20. Do you usually have your best times with friends who are younger than you?

(3) Close Personal Relationships

The individual who possesses this asset to mental health counts among his acquaintances some in whom he can confide, who show genuine respect for him as a person, and who welcome close friendship of a warm and substantial nature. Such an individual enjoys a sense of security and well-being because of having status with those who mean something to his welfare.

1. Does someone at home help you get the money you need for things?
2. Do you know people who can be trusted to keep your secrets?
3. Do most of your friends have the traits or qualities that you like?
4. Do you have many good talks about things with close friends?
5. Are there some persons outside your home who like to talk things over with you?
6. Have you found that people in the stores and shops near your home are friendly?

7. Is someone at home usually helpful to you when you are in trouble?
8. Does one of your folks often join you in doing things you like?
9. Does your family sometimes go on picnics or other outings with you?
10. Have you found that you can talk freely with one or more of your teachers?
11. Do a number of people seem to think that you will make a success in life?
12. Do you have an especially good friend who will talk with you about your problems?
13. Do you know some friendly families who always make you feel at home?
14. Do you often feel that people at home think as well of you as they should?
15. Do you often have good times with a group of people about your own age?
16. Do you feel that your folks like to have you bring friends home with you?
17. Do you often have good times with your folks?
18. Do people at home usually seem to believe the things you tell them?
19. Do people at home often let you help decide what the family is going to do?
20. Is there someone at home with whom you can talk about your problems?

(4) Social Participation

The socially adjusted individual participates in a number of group activities in which cooperation and mutuality are in evidence. In contrast to the isolate who prefers his own company, the mentally healthy individual enjoys the companionship of others. His willingness to contribute to the

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success of group endeavors provides him with the feeling of belongingness and of having status which his nature requires.

1. Do you sometimes take part in planning or carrying on a party?
2. Are you a member of a group that does interesting things?
3. Do you enjoy trading, buying, or selling things?
4. Do you usually take part in the things that are going on at school?
5. Do your friends seem to think that you are good at helping to get things done?
6. Do you take a part in activities rather than read or think about them?
7. Do you like to have your friends with you as much as possible?
8. Do you usually try to join your friends in their work or recreation?
9. Do you enjoy meeting new people at social gatherings or at school?
10. Do you enjoy talking to both young men and young women of your own age?
11. Do you belong to a group the members of which often do interesting things together?
12. Do you like to play games at the homes of friends?
13. Do you take part in plays or programs at school?
14. Do you sometimes go camping or hiking with people of your own age?
15. Are you a member of some social, literary, athletic, or similar group?
16. Would you like to have some friends in addition to the one or two you know best?
17. Do you go to school dances or social affairs?

18. When there is time do you usually visit with your classmates?
19. Do you like to study with others rather than alone?
20. Do you have some hobbies in which your friends are interested?

The Need Questionnaire: The needs questionnaire used in this study was developed by the Ohio Youth Survey Associates. It measures need-satisfaction in eight broad categories: (1) the need for achievement; (2) the need for affection; (3) the need for conformity; (4) the need for dependence; (5) the need for heterosexual relationships; (6) the need for independence; (7) the need for mastery-dominance; and (8) the need for recognition. The concept of need that forms the basis of this questionnaire has two major characteristics: directionality of behavior and tension reduction qualities. "Every act of behavior is conceived as providing a tension directed toward the achievement of a goal, the successful conclusion of which results in a reduction of that need involved in the situation." (3)

The need questionnaire is composed of item statements about hypothetical boys or girls behaving in hypothetical situations. The subjects are instructed to respond to two questions with reference to each of the item statement. Figure I presented on the following page is actually the first item in the boys' questionnaire and is the typical form for all the items.

3 Charles Lucas, "An Emergent Category Approach to the Analysis of Adolescent Needs," (unpublished Doctor's thesis, Ohio State University, 1951), p. 17.

1. Luke almost always stays out of trouble.

Am I like him?	YES	NO	NOT SURE
Do I want to be like him?	YES	NO	NOT SURE

Figure I Sample Item From Ohio Youth
Survey Needs Questionnaire

There is a separate form for boys and girls. The only difference between the two forms is that in one, common names for boys are used, and in the other, common names for girls. A copy of the boys' and girls' forms of the Ohio Youth Survey Needs Questionnaire and the tabulation of responses obtained are provided in Appendix C.

A measure of decisiveness, that is, the ability or habit of promptly and definitely deciding on a course of action, was obtained by totaling the number of times the subject answered not-sure. In interpreting this variable in relationship to other need categories, per se, it was found that the score obtained was an artifact: a low score on a particular need category resulted in a high not-sure score. This variable was excluded in the interpretation of the factors that emerged from this study.

The definitions of the eight need categories and the items in each category are listed below.⁽⁴⁾ The number in the bracket represents the number of the item in the need, questionnaire. Yes, yes and no, no responses are accepted as evidence of need-satis-

⁴ Ibid., p. 36-37.

faction; no, yes responses are interpreted as indices of goal seeking behavior.

(1) The need for achievement

The need to acquire, gain, receive, win, or strive to accomplish goals, tokens of status and respect, or knowledge. To attain, prove, secure, surmount through praiseworthy exertion.

Yes, yes

Doesn't have to study to get good marks. (13)
Does the best he can. (19)
Gets best marks in class. (28)
Does what he is supposed to do. (29)
Will do well after finishing school. (39)
Can show how well he can do. (43)
Nothing keeps him from doing his best. (56)
Does what his parents expect. (57)
Does most things rather well. (72)
Tries to do his best. (77)
Friend thinks he is tops in almost everything. (90)
Bothers him if he doesn't do his best. (67)

No, yes

Can succeed better than friend. (47)
Succeeds when works hard. (62)

(2) The need for affection

The need to be loved, cherished, emotionally wanted for one's own sake; to receive unconditional love and affection. To receive emotional love from parents, relatives, friend, or lover.

Yes, yes

Everybody likes him. (3)
Teachers do favors for him. (8)
Teachers are fond of him. (48)
Parents show they love him. (66)

(3) The need for conformity

The need to be like others, to avoid marked

departure from the mode. To yield or conform to custom. To avoid being different in dress, behavior, attitudes, ideals.

Yes, yes	Doesn't want a job where he will loaf. (22)
Behaves like adults want him to. (63)
Goes to one of the best schools. (73)
Doesn't like to do things too easy. (81)
No, no	Doesn't always do what other boys do. (11)
Is different from other boys. (12)
Does everything others do. (25)
Does what other couples do. (85)
No, yes	Stays out of trouble. (1)
Does what he is supposed to do. (29)
Bothers him if he doesn't do his best. (67)
Tries to do his best. (77)

(4) The need for dependence

The need to have to ask for or to depend on others for emotional support, protection, care, encouragement, forgiveness, help.

Yes, yes	He and chum go around together. (15)
He and family enjoy doing things together. (70)
Adults keep telling him how to act. (80)
Goes to best friend to get something off chest. (88)
Always asks friend what to do. (89)
No, yes	Gets help, sympathy, and advice from crowd. (59)
Crowd helps him when he needs help. (65)

(5) The need for heterosexual relationships

The need to receive understanding, emotional support, and recognition from a member of the opposite sex. (The no, no responses seem to indicate a prepubescent, women-hating attitude which may mask a real interest in the opposite sex.)

No, no	Has girl who thinks he is nicer than other boys. (5)

Has a girl all his own. (79)
Can date any girl. (83)

No, yes

Has girl who understands him. (9)
Has girl who gives him sympathy and encouragement. (23)
Has girl who thinks he is pretty special. (55)
Girl tells him she is proud of him. (64)
Has girl who lets him know she likes him. (86)

(6) The need for independence

The need to be free of external control by friends, family, associates and others. To do things in a self-determining manner, to make one's own decisions, to be self-sufficient, to rely on oneself.

Yes, yes

Family treat him like an adult. (21)
Older people treat him like an adult. (32)
Gets grown-ups to do some things he wants. (34)
Family approves of what he does. (78)

(7) The need for mastery-dominance

The need to control, to be in power, to lead, to manage, govern, control, overcome people, problems, obstacles. To influence the behavior, feelings, or ideas of others.

Yes, yes

Can make parents change minds. (6)
Can do what others do. (25)
Gets parents to see things his way. (40)
Boys listen to him. (46)
Girl seldom tells him what to do. (60)
Gets his way. (71)
Family lets him make up his own mind. (75)

No, yes

Gets adults to treat him like an adult. (32)
Gets adults to do what he wants. (34)
Has influence on girl friend. (42)
Is the leader. (51)

(8) The need for recognition

The need to be noticed, to become known. To avoid effacement of one's individuality. To be identified by others as a unique individual, to be distinguished from others. To find one's place, to be regarded as an important human being.

Yes, yes	Can succeed better than chum. (47)
Is the leader. (51)
Girl tells him she is proud of him. (64)
Teachers give him praise. (82)
No, no	Gets best marks in class. (28)
Has a chum who thinks he is tops in everything. (90)
No, yes	President of school clubs. (31)
Boys listen to him. (46)
Goes to best school. (73)

General Data Sheet: Information of a personal nature, i.e., height, weight, father's occupation, siblings, etc., was obtained from a General Data Sheet. This contained the following items:

Name _____ School _____

Weight ____ Height ____ Father's Occupation _____

Age ____ Ages of brothers _____ Sisters _____

Rank in order of preference the two subjects you enjoy most: _____

Rank in order of preference the two out-of-school activities you enjoy the most: _____

Name any hobbies you have: _____

Approximate the number of states you have travelled through. _____

What schools other than the present one have you attended? _____

What is your vocational goal? _____

The data on hobbies, and schools other than the present one, were not used in this study.

Height and Weight Ages: Tables for the translation of physical measurements into age units as developed by Olson were used to determine the height and weight age of each subject.(5) Copies of these tables are in Appendix B.

SELECTION OF THE SAMPLE GROUP

The ninety-nine boys and girls who are the subjects of this study are all pupils from junior high schools in or near Columbus. It was the original purpose of the investigator to select a group of eighth grade pupils whose I.Q.'s were 130 and above. Proceeding on this basis, the cumulative records of the schools participating in the study were screened, and any pupil who had obtained an I.Q. of 120 and above in a previous test was selected for re-testing. When it was realized that at least four hours was involved in the administration of the California Achievement Battery, the Mental

5 Willard C. Olson and Byron O. Hughes, "Tables for the Translation of Physical Measurements into Age Units," (Mimeographed, Ann Arbor, Michigan: University Elementary School, 1947).

Health Analysis, the needs questionnaire, and a general information sheet, the idea of also administering an intelligence test was abandoned, with one exception. The records of pupils from The University School that were tentatively selected for the study contained Stanford-Binet I.Q.'s and most of these were several years old. As a final basis of selection in this instance, the California Mental Maturity Test was administered by the investigator to this group.

At Upper Arlington, Worthington, and Bexley Junior High Schools and in the two Columbus junior high schools, every eighth grade pupil whose records showed an I.Q. of 120 and above on a group intelligence test obtained within the last two years was kept in the sample population of potentially gifted children for this study. This concession meant that subjects in this study were selected on a basis of I.Q.'s from two different intelligence tests. The Columbus junior high schools use the Henmon-Nelson Test of Mental Abilities, but the other three schools in the study use the California Test of Mental Maturity. The distribution of the experimental group by intelligence quotients is given in Table IV, page 42.

Testing Conditions: The instruments described in this chapter were administered over a period of approximately a month in the spring of 1954. The investigator met first in the separate schools with each group of eighth grade pupils who had been selected on the basis of I.Q.'s and explained to them that they had been selected as a group of junior high school pupils with comparable abilities. They were told that we were interested in studying the differences in

their academic achievements. No reference was made to the fact that they were considered potentially gifted, or intellectually superior children.

Since approximately four hours was required to administer the instruments, four test periods were scheduled, an hour each, and a week apart. Most of the tests were given in classrooms. The cafeteria at The University School, and the Music Room at Upper Arlington Junior High School were the exceptions. The tests were all administered by the investigator assisted by a qualified graduate student from The Ohio State University.

TREATMENT OF THE DATA

The method of factor analysis was chosen as the appropriate method of analyzing the data. It has the advantage of making possible the location of clusters or groups of highly intercorrelated variables. For example, by inspection or from theoretical knowledge the need for recognition, age, I.Q., and the level of achievement may be judged to be interrelated. Factor analysis enables one to verify whether this is so.

Raw scores on all tests were used as the basis for the statistical analysis. The data was coded and key punched on I.B.M. cards. The next step was to compute correlation coefficients on each variable with every other of the thirty-three variables. The product moment inter-correlation matrix, thus computed, is shown in

Table XV in Appendix A. This matrix was factored through the use of the Thurstone multiple group technique. Sixteen factors emerged and then were rotated to orthogonal and finally rotated for maximal meaningfulness. These are also shown in Table XVI in Appendix A.

Chapter V

THE FACTORS

This chapter is given to an analysis and interpretation of the sixteen orthogonal factors that emerged from the statistical treatment of the data in terms of the variables highly loaded on those factors. A description or interpretation of each factor is followed by a list of the identifying variables (see page 6). The significant loadings on each factor in terms of absolute size are also given.

In considering the interpretation of each factor, the reader's attention is directed to the fact that the I.Q.'s for the sample population were obtained from two different tests. This makes any interpretation of the I.Q. tenuous, particularly in view of the fact that the Henmon-Nelson Test of Mental Abilities, used in the Columbus junior high schools, is generally regarded as a highly verbal test, whereas the I.Q.'s obtained from the California Test of Mental Maturity give a composite score from both verbal and non-verbal subtests.

Factor I

A general factor of achievement appears to underlie those variables which characterize superior ability, superior achievement, upper socio-economic status, male superiority, and self-preoccupation. Persons high on this factor apparently like to be independent and have no particular need to socialize. Another interpretation

might be that because of their superior ability and achievement, they have been socially ostracized from their peer groups. This factor is prominent in the "brightest of the bright" from Upper Arlington and Bexley. The identifying variables are:

1. Reading achievement
2. Arithmetic achievement
3. Language achievement
4. Male-female
6. I.Q.
9. Father's occupation
14. Social participation
17. Need for conformity
19. Need for heterosexual relationships
27. Everett
30. Bexley
31. Upper Arlington

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
2. Arithmetic achievement	.68
1. Reading achievement	.63
4. Male-female	.36
31. Upper Arlington	.31
27. Everett	-.30
30. Bexley	.30

19. Need for heterosexual relationships	-29
14. Social participation	-28
3. Language achievement	28
6. I.Q.	26
17. Need for conformity	-26
9. Father's occupation	25

Factor II

Factor II can be identified as grammar facility. Persons high on this factor excel in their knowledge of grammar, spelling, and the mechanics of English, i.e., capitalization, punctuation, and parts of speech. The importance that they attach to knowing grammar may be engendered by the belief that "perfect English" is necessary if they are to be socially accepted by the "right" people. The loadings also indicate that grammar is probably not stressed at The University School or at Everett; the rules of language usage are not taught, per se. The identifying variables are:

- 1. Reading achievement
- 3. Language achievement
- 14. Social participation
- 19. Need for heterosexual relationships
- 27. Everett
- 32. University School

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
3. Language achievement	68
32. University School	-45
14. Social Participation	34
27. Everett	-30
1. Reading achievement	26
19. Need for heterosexual relationships	22

Factor III

It is proposed that this factor represents a pattern of socio-economic adjustment. Pupils from The University School whose fathers' occupations put their families into the upper socio-economic group tend to be submissive and conforming in their behavior. They show little inclination to be leaders in their peer groups, and seem to complacently accept parental and adult control and guidance. They have travelled considerably. By contrast, pupils from Everett have travelled very little, their fathers' occupations place them at the lower end of the socio-economic scale, and they seem to have a strong desire for personal domination over their parents and peers. It appears, too, that the pupils from Everett place a value on knowing the rules of grammar usage as a symbol of upper class status but talk the language that is acceptable in their culture. In other words, they may have learned the rules but their language habits are more in keeping with those of their parents and peer groups. The identifying variables are:

- 3. Language achievement
- 9. Father's occupation

- 21. Need for mastery-dominance
- 26. Travel
- 27. Everett
- 29. Worthington
- 32. University School

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
9. Father's occupation	50
21. Need for mastery-dominance	-48
27. Everett	-46
32. University School	36
26. Travel	34
3. Language	-34

Factor IV

Factor IV seems to represent emotional conflict. Persons high on this factor do not get along without leaning on others for help and advice. This need, however, is not compatible with their strong desire to be recognized as "big shots". Persons high on this factor represent a group of less capable persons who are low in reading achievement, a fact that suggests the hypothesis that their so-called "reading problems" may very well serve them as a means of getting attention and recognition. Interest in social activities tends to displace a preference for intellectual pursuits. The identifying variables are:

- 1. Reading achievement
- 6. I.Q.
- 18. Need for dependence
- 22. Need for recognition
- 25. Preference for social vs. non-social out-of-school activities

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
18. Need for dependence	45
25. Preference for social vs. non-social out-of-school activities	44
1. Reading achievement	-33
6. I.Q.	-30
22. Need for recognition	29

Factor V

Factor V clearly indicates that the "only" child and the "older" child in the sample population is more likely to have travelled extensively. From the standpoint of convenience and finances, it is logical that if a couple has only one child, the family has travelled more. Family size also helps to determine how much attention a child is given. The loadings on this factor indicate that the "only" child feels no need for more than he is already enjoying in the way of adult recognition. The identifying variables are:

- 5. Chronological age
- 22. Need for recognition
- 26. Travel
- 33. Siblings

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
26. Travel	50
33. Siblings	-30
22. Need for recognition	-30
5. Chronological age	30

Factor VI

Factor VI can be identified as social-emotional maturation. The loadings on this factor suggest that the attention parents and other adults give children who are intellectually "advanced" for their ages may provide them with the emotional security and social maturity that enable them to make friends easily. Since adults think well of them and tend to treat them as adults, they know better than to resort to childish ways of getting their own way. They have confidence in themselves and consequently tend to be leaders in peer groups. Their relationships with adults, however, are apt to be more important to them than out-of-school activities with their peers. They are intellectually more compatible with adults than with their peers, and this may explain why they prefer adult companionship to peer activities. Crestview is considered as having a

fairly homogenous population which would make a good environment for developing mature adjustment. The identifying variables are:

- 11. Behavioral immaturity
- 12. Feelings of inadequacy
- 13. Close personal relationships
- 14. Social participation
- 21. Need for mastery-dominance
- 25. Preference for social vs. non-social out-of-school activities
- 28. Everett

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
13. Close personal relationships	72
12. Feelings of inadequacy	64
28. Crestview	56
11. Behavioral immaturity	50
14. Social participation	43
21. Need for mastery-dominance	24
25. Preference for social vs. non-social out-of-school activities	-24

Factor VII

Factor VII is best identified as the ability to stand alone, i.e., a belief in oneself. When an individual has faith in his own abilities, it helps other people to have faith in him. In striving to measure up to their expectancies, he does not permit obstacles to

easily thwart his efforts to achieve his goals, whether they pertain to making high grades or to having many friends. Persons high on this factor show a mature control over their emotions and the ability to act effectively in social situations. The bright child at Crestview, on the average, is typically a middle class child who is likely to be overprotected. He either lacks self-confidence or is still unaware of his own potentialities. The identifying variables are:

- 11. Behavioral immaturity
- 12. Feelings of inadequacy
- 25. Preference for social vs. non-social out-of-school activities.
- 28. Crestview

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
12. Feelings of inadequacy	62
11. Behavioral immaturity	35
25. Preference for social vs. non-social out-of-school activities	-30
28. Crestview	-25

Factor VIII

Factor VIII can be identified as close peer relationships. The socially gregarious person in the sample population enjoys being a part of any activity that brings him in close personal and social proximity to his peers. He is happiest when free of adult

supervision. In this study, the brightest show the strongest affinity for social activities. Peer relationships are strongest at Crestview and the least developed at Worthington and Everett.

The identifying variables are:

- 6. I.Q.
- 13. Close personal relationships
- 14. Social participation
- 20. Need for independence
- 27. Everett
- 28. Crestview
- 29. Worthington

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
29. Worthington	-65
6. I.Q.	57
28. Crestview	52
14. Social participation	45
13. Close personal relationships	40
20. Need for independence	28
27. Everett	-27

Factor IX

Factor IX seems best identified as achievement satisfaction. Persons who strive for superior achievement are apt to be strongly motivated by the need for approval, respect, and status from adults.

They are not apt to antagonize adults but are more likely to avoid situations and conflicts with parental or school authority that might cause them to alienate themselves from those upon whom they depend for approval and affection. The brightest in the sample population are inclined to be high on this factor. The identifying variables are:

- 6. I.Q.
- 15. Need for achievement
- 16. Need for affection
- 18. Need for dependence

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
15. Need for achievement	45
16. Need for affection	45
18. Need for dependence	40
6. I.Q.	30

Factor X

It is proposed that Factor X represents behavior maturity. The adolescent whose behavior adults consider "most grown up" is likely to enjoy the maximum freedom from adult supervision. He is apt to relate himself best to adults and to feel no need to participate in the social activities of his peers which might require him to yield a measure of his independence. He tends to regard what many of his peers do as "kid stuff". The identifying

variables are:

- 11. Behavioral immaturity
- 14. Social participation
- 20. Need for independence
- 29. Worthington
- 30. Bexley

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
20. Need for independence	.42
14. Social participation	-.35
11. Behavioral immaturity	.30
29. Worthington	.27
30. Bexley	-.24

Factor XI

Factor XI seems best identified as father identification. Boys who have reached manhood in their physical development tend to take over the value system of their fathers. It is very important to them that they are accepted by their fathers in a man-to-man relationship. They do not conform to what their peers set as standards for dress and behavior and they are likely to think their peers' interests are childish. Their values are more in accord with those of their parents. This factor could also be interpreted as meaning that these boys are more or less social isolates by virtue of their size, a situation that is not of their own making.

The identifying variables are:

- 4. Male-female
- 9. height age
- 10. weight age
- 17. Need for conformity
- 18. Need for dependence
- 24. Intellectual vs. non-intellectual preference for school subjects

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
18. Need for dependence	40
17. Need for conformity	-38
4. Male-female	35
24. Intellectual vs. non-intellectual preference for school subjects	28
9. Height age	26
10. Weight age	35

Factor XII

Factor XII can be identified as social introversion. Boys and girls who have a greater tendency to spend their time on solitary interests are inclined to be socially withdrawn individuals who have little or no desire to exert influence over other people. They are more interested in the subject matter of history, science, mathematics, etc., than in the opportunities for them to participate in group activities. Their vocational choices indicate little

drive toward future job opportunities that have status value. The identifying variables are:

- 10. Vocational goals
- 18. Need for dependence
- 21. Need for mastery-dominance
- 24. Intellectual vs. non-intellectual preference for school subjects
- 29. Worthington

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
21. Need for mastery-dominance	-56
29. Worthington	42
24. Intellectual vs. non-intellectual preference for school subjects	35
10. Vocational goals	-24
18. Need for dependence	-23

Factor XIII

Factor XIII is identified as a couplet representing physical maturation. The boys and girls from Everett Junior High School show significantly less physical development in comparison to their age and intellectual peers in other junior high schools. They tend to compensate for this by being non-conformists, by adopting a pattern of behavior that will make themselves noticed. The identifying variables are:

- 8. Height age
- 7. Weight age
- 17. Need for conformity
- 27. Everett

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
8. Height age	93
7. Weight age	70
27. Everett	-30
17. Need for conformity	-25

Factor XIV

Factor XIV can be described as the belief in the importance of socio-economic status. Children whose fathers' occupations fall within professional ranks like their friends to recognize the status and the socio-economic security that most professional people enjoy. The loadings indicate that many fathers of Bexley's pupils are professional persons. The identifying variables are:

- 9. Father's occupation
- 22. Need for recognition
- 30. Bexley

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
22. Need for recognition	47

Variable Number	Loading
9. Father's occupation	30
30. Bexley	30

Factor XV

Factor XV indicates essentially that the males in the sample population prefer science, mathematics and similar subjects to less intellectual activities. This is less evident at The University School where the curriculum is not organized as rigidly on the basis of subject matter areas as is the practice in other junior high schools. The identifying variables are:

- 4. Male-female
- 24. Intellectual vs. non-intellectual preference for school subjects
- 32. University School

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
24. Intellectual vs. non-intellectual preference of school subjects	55
32. University School	-55
4. Male-female	30

Factor XVI

Factor XVI is interpretable but of no psychological significance because it is well known that children who have siblings are apt to be slower in showing an interest in the opposite sex. The

identifying variables are:

- 5. Chronological age
- 19. Need for heterosexual relations
- 33. Siblings

Significant loadings on this factor in terms of absolute size were:

Variable Number	Loading
5. Chronological age	50
33. Siblings	50
19. Need for heterosexual relations	-37

Chapter VI

RESTATEMENT, CONCLUSIONS, AND FUTURE RESEARCH

Increasing concern for the problems related to the education of bright and gifted children has been evidenced recently by educators and psychologists alike. From many sources comes the assertion that whereas the mentally retarded are being given training adapted to their limitations and needs in special classes, the bright child is being neglected. The wheels of progress move slowly, however, in that up to the present time only sporadic efforts are being made here and there to find ways of developing the superior abilities of potentially gifted children. Rigidity of school organization has too long served as a poor excuse for not meeting this problem more realistically. The pressing need is to identify children of superior intellectual ability, and to do all we can to challenge and stimulate their special capacities and interests. We would do well to recognize that, "Much of the vision necessary for the promotion of human welfare must come from our gifted boys and girls educated for worthwhile leadership and productivity in a democracy."⁽¹⁾

THE PROBLEM: The purpose of this research was to determine the relative importance of certain social and psychological factors in

¹ American Association for Gifted Children, The Gifted Child, (Boston: D. C. Heath and Co., 1951), p. v.

addition to other more objective data that would account for the differences in the academic achievement level in a group of intellectually superior eighth grade children. The investigator was interested specifically in studying the inter-relationships that exist between the following variables: (1) reading achievement, (2) arithmetic achievement, (3) language achievement, (4) male-female, (5) chronological age, (6) I.Q., (7) weight age, (8) height age, (9) father's occupation, (10) vocational goal, (11) behavioral immaturity, (12) feelings of inadequacy, (13) close personal relations, (14) social participation, (15) need for achievement, (16) need for affection, (17) need for conformity, (18) need for dependence, (19) need for heterosexual relationships, (20) need for independence, (21) need for mastery-dominance, (22) need for recognition, (23) decisiveness, (24) preference of intellectual vs. non-intellectual school activities, (25) preference for social vs. non-social out-of-school activities, (26) number of states travelled in United States, (27) Everett Junior High School, (28) Crestview Junior High School, (29) Worthington Junior High School, (30) Bexley, (31) Upper Arlington, (32) The University School, and (33) siblings vs. no siblings.

BASIC ASSUMPTIONS AND DEFINITIONS: Some of the more important assumptions upon which this study was based are the following:

- (1) The child is viewed "as a total organism rather than as a source of separate sets of data. ... There is an intimate relationship in the functioning of all aspects of growth. ... achievement in school is a

function of the total growth of the child."(2)

- (2) The gifted do not constitute a discrete category of individuals. They differ from others only relatively, but on the average, tend to be the more extreme deviates on a continuous scale in matters of physical, social, psychological, and educational growth and development.
- (3) Intelligence is a significant determiner of school achievement; but many other personal, social, psychological, and emotional factors affect the nature and extent of school achievement.

The terms intellectually superior, moderately gifted, potentially gifted, etc., and achievement have specific meanings in this study. The terms or expressions in the first group are used interchangeably to designate pupils who have obtained an I.Q. of 120 or above on a group intelligence test within the last two years. Achievement is defined as pupil's competencies in reading, arithmetic, and language usage as measured by the California Achievement Battery.

SOURCE OF DATA: The ninety-nine boys and girls who are the subjects of this study are all pupils from junior high schools in or near Columbus, Ohio. Everett and Crestview Junior High Schools are in the Columbus school system; Bexley, Upper Arlington, and Worthington Junior

2 Willard C. Olson, Child Development, (Boston: D. C. Heath and Co., 1949), p. 163.

High Schools are located in suburbs of Columbus. The University School is affiliated with The Ohio State University. The average age in this group is 13 years, 8 months, and the median I.Q. is 132. Boys and girls are almost equally divided in number. The physical development of 44% of the sample population is considered beyond normal expectation in comparison to their age-peers. The majority of them (75%) come from homes whose socio-economic status would be considered above average. The median number of children per family is two. Educationally, this group of intellectually superior adolescents has mastered the skills of reading, arithmetic, and language usage at least sixteen months beyond actual grade placement. Their preferences in the school curriculum are in the "thought" subjects, but more than half of them prefer sports to other out-of-school activities. The evidence seems to indicate that they relate themselves well with their parents, but that many feel some insecurity in terms of peer relationships. A profession of some kind represents the vocational goal of 71% of this group.

METHODOLOGY: The California Achievement Battery, the Mental Health Analysis, the Ohio Youth Survey Needs Questionnaire, and a general information sheet are the primary source of data. The latter was the device used for obtaining information on physical growth, father's occupation, sibling relationships, vocational goal, and preferences for in- and out-of-school activities. The method of factor analysis was chosen as the appropriate method of analyzing the data.

THE FACTORS: Sixteen orthogonal factors emerged from the statistical treatment of the data. The interpretation of these in terms of the variables highly loaded on each is summarized below:

Factor I, best described as a general factor of achievement, appears to underlie those variables which characterize superior ability, superior achievement, upper socio-economic status, male superiority, and self-preoccupation.

Factor II can be identified as grammar facility, specifically referring to those persons who excel in their knowledge of grammar, spelling, and the mechanics of English.

Factor III represents a pattern of socio-economic adjustment which suggests that adolescents from upper socio-economic families tend to be submissive and conforming in their behavior.

Factor IV seems to indicate emotional conflict in terms of needing to depend on others for help on the one hand, and wanting status and recognition on the other.

Factor V clearly indicates that the "only" child and the "older" child in the sample population is more likely to have travelled extensively.

Factor VI can be identified as social-emotional maturation. The loadings on this factor suggest that the attention parents and other adults give children who are intellectually "advanced" for their ages may provide them with the emotional security and social maturity that enable them to make friends easily.

Factor VII is best described as the ability to stand alone, i.e., a belief in oneself.

Factor VIII can be designated as close peer relationships, an affinity for social activities.

Factor IX seems to express achievement satisfaction. Persons who strive for superior achievement are apt to be strongly motivated by the need for approval, respect, and status from adults.

Factor X represents behavior maturity. The adolescent whose behavior adults consider "very grown up" is likely to enjoy the maximum freedom from adult supervision.

Factor XI suggests that boys who have reached manhood in their physical development tend to take over the value system of their fathers.

Factor XII can be identified as social introversion, the inclination to avoid social participation in favor of more solitary interests.

Factor XIII is essentially a couplet representing physical maturation.

Factor XIV can be described as the belief in the importance of socio-economic status.

Factors XV and XVI are interpretable, but are considered as having no psychological significance.

HOW THE PRESENT STUDY COMPARES TO OTHER RESEARCH FINDINGS

In Chapter III, research on the gifted to date was reviewed. To the best of the writer's knowledge, no previous study in this area has employed factor analysis. The present study, however, included

many of the same variables or indices that were studied by Terman and Witty. In drawing any comparisons to these studies, the fact to be kept in mind is that their data were obtained over twenty years ago and involved only children whose I.Q.'s were 140 and above. The similarities of findings between the three studies are presented as follows:

1. In general, the subjects of Terman's and Witty's studies had a knowledge of educational subject matter from two to three years in excess of their grade placement. By contrast, the group of intellectually superior adolescents in the present study had mastered the skills in reading, arithmetic, and language usage approximately sixteen school months beyond actual grade placement, which represents a difference of between one and two years.

2. In Terman's original group, the boys outnumbered the girls, whereas in Witty's group of one hundred gifted children, the distribution was approximately equal. The ratio of boys to girls in the present study was also found to be about equal in number.

3. The findings in the Terman and Witty studies and the data of this study are in general accord as to the physical growth of intellectually superior children: bright and gifted children usually exceed the developmental norms for average children.

4. 31% and 34% are the respective percentages of children whose fathers were professional in Terman's and Witty's studies; 50% and 64% were semi-professional or business. The occupational status of the fathers in the present study were 42% professional and 33% business.

5. The data in the Terman and Witty studies showed an average

number of children to a family 3.40 and 2.32, respectively. The mean number of children per family in the present study was 2.37.

6. The trend toward choosing a vocational goal that promises an occupational status that is equal to or better than that held by the fathers was evident in both Terman's study and the present one.

7. Terman and Witty both found that their groups of gifted children were somewhat less interested in the more vigorous types of contact sports, and somewhat more interested in intellectual or quiet activities. Similar findings were obtained in this study.

INDICATIONS FOR FUTURE RESEARCH

The following suggestions are made as indications for further research:

1. The design of this research might be used in a study employing a larger sample of eighth grade children, selected at random. This would enable an investigator to draw comparisons between groups of adolescents at different ability and achievement levels. The writer strongly recommends, however, that only I.Q.'s obtained from the same intelligence test and administered by the same examiner be used.

2. An investigation might be made to determine some factors, if any, that would account for the differences in the achievement level of a group of intellectually superior children with I.Q.'s between 120 and 130 as compared to a group of children whose I.Q.'s were between 150 and 160.

3. It is suggested that case studies be made of those pupils

whose achievement deviates radically from the average of the group.

4. A follow-up study of this group of intellectually superior adolescents at the 11th or 12th grade is suggested as a means of determining whether their achievement progress continues at the same accelerated rate, and leads into professional training following high school.

5. An investigation might be made to determine what extent instruction affects the achievement of the intellectually superior children in this study. It is quite possible that the mean I.Q. of a given group affects the teacher's expectation of individual pupils, as well as to influence the direction given to instruction.

APPENDIX A

**STATISTICAL TREATMENT
OF THE DATA**

TABLES XV, XVI

TABLE XV

CORRELATIONS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
1		47	38	22	04	31	13	21	24	15	-11	06	-08	-13	19	-04	-31	10	-10	00	14	-02	02	15	-01	-09	-24	01	18	21	-08	-15	-16
2	07		24	20	09	11	09	15	18	06	-09	01	-14	-19	05	-13	-13	-04	-23	00	15	-10	07	00	-04	18	-21	-16	05	18	21	-01	-06
3	-01	04		-06	02	14	-08	05	00	06	-02	-02	01	14	20	06	09	07	-02	09	20	07	-16	04	11	-19	01	14	-04	20	11	-53	04
4	06	03	00		13	20	22	02	22	17	-14	-11	-16	-23	13	05	-20	22	-15	-09	08	-13	10	29	10	08	-16	-05	-03	18	12	-04	05
5	05	03	-02	06		-12	17	17	14	-13	-02	-17	-20	-02	01	-01	-05	-03	16	-28	07	00	09	00	-01	14	-05	-08	-09	10	13	04	24
6	-01	00	06	09	-02		02	04	12	15	10	06	23	16	27	11	05	23	-07	33	21	-10	-36	04	-03	-04	-12	37	-30	-09	04	02	-12
7	00	-03	-02	08	00	-05		68	11	04	-12	-13	-10	-10	-06	03	-26	-02	-06	-19	-04	-09	25	22	12	-03	-20	00	05	11	00	02	00
8	08	00	09	-03	02	03	-01		17	-02	-06	-03	-06	-03	11	09	-23	-04	-03	-18	02	-12	11	02	19	07	-30	01	05	11	09	01	-08
9	03	06	-01	-03	11	02	-03	04		13	-04	12	-14	-07	16	-03	-17	20	-16	00	-14	06	01	05	-14	23	-44	-05	15	12	07	13	-05
10	00	-01	01	-06	13	-02	-02	-01	04		11	-02	00	02	14	07	-07	27	-08	00	23	-02	-21	07	03	11	-03	09	-06	19	-11	-11	-03
11	00	-02	02	05	12	-10	06	01	-04	09		50	37	21	18	06	06	17	-01	26	27	22	-43	-01	02	-01	-06	31	-10	-11	-15	00	01
12	-04	04	00	11	00	-02	-01	03	11	-01	00		34	36	07	09	01	15	07	06	11	07	-25	03	00	02	-10	09	01	-11	-02	10	-01
13	-08	-06	08	-05	-03	-02	04	-02	-06	02	-01	-04		54	13	08	21	10	02	08	13	15	-35	01	03	-09	-23	74	-28	-22	-22	-07	-11
14	-09	04	05	01	02	-01	-07	05	05	04	-02	-03	05		03	09	10	10	20	-04	05	05	-20	02	19	06	-18	51	-33	-09	-01	-06	-05
15	06	01	08	04	00	03	-04	09	06	04	04	-03	05	06		29	08	04	08	20	12	12	-44	06	-07	-08	-11	18	-11	13	02	-19	-05
16	-02	-06	04	05	-07	01	01	01	06	-08	-06	-02	-08	-05	09		-09	26	06	06	13	01	-29	09	23	11	08	19	-10	-04	-04	-16	-08

10	00	-01	01	-06	13	-02	-02	-01	04		11	-02	00	02	14	07	-07	27	-08	00	23	-02	-21	07	03	11	-03	09	-06	19	-11	-11	-03
11	00	-02	02	05	12	-10	06	01	-04	09		50	37	21	18	06	06	17	-01	26	27	22	-43	-01	02	-01	-06	31	-10	-11	-15	00	01
12	-04	04	00	11	00	-02	-01	03	11	-01	00		34	36	07	09	01	15	07	06	11	07	-25	03	00	02	-10	09	01	-11	-02	10	-01
13	-08	-06	08	-05	-03	-02	04	-02	-06	02	-01	-04		54	13	08	21	10	02	08	13	15	-35	01	03	-09	-23	74	-28	-22	-22	-07	-11
14	-09	04	05	01	02	-01	-07	05	05	04	-02	-03	05		03	09	10	10	20	-04	05	05	-20	02	19	06	-18	51	-33	-09	-01	-06	-05
15	06	01	08	04	00	03	-04	09	06	04	04	-03	05	06		29	08	04	08	20	12	12	-44	06	-07	-08	-11	18	-11	13	02	-19	-01
16	-02	-06	04	05	-07	01	01	01	06	-08	-06	-02	-08	-05	09		-09	26	06	06	13	01	-29	09	23	11	08	19	-10	-04	-04	-16	-08
17	-07	-01	05	-02	-01	09	-01	04	03	09	-10	-09	07	-11	-01	-14		-12	09	12	10	09	-36	-27	-07	-03	10	14	-20	-07	-02	04	02
18	02	-13	-11	-06	-04	00	-03	-02	06	-04	-02	05	-03	-02	-13	-03	-03		-04	08	25	08	-17	15	29	07	-15	29	-18	-05	08	-09	-10
19	00	-03	-10	03	-07	04	01	01	-09	-05	-02	07	-02	07	00	-06	-06	-02		-10	00	00	-31	03	-04	-06	14	-05	-01	08	-11	-03	-15
20	-09	-04	-04	-01	-13	-01	01	01	04	00	02	-04	-04	-04	04	-02	00	-03	-06		12	12	-34	-06	08	-06	11	14	-12	-18	-02	03	00
21	04	01	01	04	02	01	-03	-01	13	-01	03	-03	-01	06	-02	-04	10	-05	02	00		00	-51	-10	16	-17	16	16	-22	01	11	-27	-01
22	-05	-03	-07	-06	05	-02	-05	-09	-03	-01	12	-05	08	06	10	-02	08	-13	-12	13	-02		-27	02	19	-25	-12	14	-03	17	-19	-03	00
23	09	05	-03	03	02	-13	-01	-08	00	-06	-02	08	06	-13	00	02	-13	13	-05	-14	-10	-02		04	-10	04	-04	-32	28	-05	06	17	01
24	07	08	05	01	00	05	03	-13	-05	01	12	-04	03	06	00	02	-07	07	05	03	02	00	-07		04	-07	-10	01	24	07	-01	-31	12
25	06	-04	-06	11	02	-09	08	01	-08	-01	-06	04	-11	13	00	07	00	00	-09	09	02	01	-07	01		-01	-05	20	-03	-16	-02	-02	-01
26	03	10	03	-07	00	06	-03	09	12	00	-03	01	-07	07	-02	05	02	-01	04	04	-05	-03	-10	-11	-01		-11	-11	-10	02	17	24	-21
27	-06	-01	11	-02	-05	-02	07	02	-07	-04	01	09	-08	11	-02	05	07	01	08	-01	-02	-11	-01	-04	-04	03							
28	-04	-11	08	-04	08	00	06	01	01	01	02	-10	10	01	09	-07	06	-09	-09	-05	-01	02	01	01	-08	-07							
29	01	04	-11	-03	04	02	11	03	01	04	06	-10	05	-02	-03	06	04	01	04	-01	02	-07	00	04	-02	-03							
30	06	-03	-03	07	-05	-03	01	05	-07	12	03	-04	-03	04	03	00	-05	-14	03	-05	00	02	07	09	-10	06							
31	-12	-03	04	02	12	03	-04	03	01	-13	-12	08	-10	13	-02	02	-01	-02	01	-03	03	-10	00	08	-04	08							
32	06	-04	-05	05	04	14	02	00	03	-02	-03	10	-02	02	01	-03	06	04	11	12	-04	01	-04	03	09	06							
33	-13	00	-01	05	06	-01	02	-09	-04	02	05	-02	-06	00	-02	02	06	-08	02	06	-06	-10	-02	10	-02	-10							

RESIDUALS

TABLE XVI

ORTHOGONAL FACTOR LOADINGS

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	h^2
1	63	26	-18	-33	10	08	00	00	10	02	11	20	00	20	00	00	.72
2	68	00	00	06	20	-03	00	00	-10	02	-14	00	00	00	00	00	.53
3	28	68	-34	17	00	-04	00	00	00	10	00	03	-10	15	10	10	.75
4	36	-13	20	00	00	-16	-20	-01	20	-13	35	-10	00	-10	30	00	.54
5	00	00	00	00	30	-20	00	-10	00	-20	00	-20	15	10	00	50	.50
6	26	00	-14	-30	00	09	07	57	30	18	17	-12	00	00	00	00	.68
7	19	-04	-02	-08	00	-20	00	08	00	-20	07	03	70	00	00	00	.18
8	20	00	00	-05	00	02	-10	-03	00	-05	-13	00	93	00	00	00	.93
9	25	10	50	-03	00	-03	00	05	10	10	26	05	13	30	00	00	.52
10	15	00	-08	-03	20	03	00	-05	20	-08	35	-24	00	00	00	00	.29
11	-10	-04	02	11	00	50	35	19	00	30	02	-20	00	00	00	00	.56
12	00	00	00	-02	00	64	62	-03	00	02	06	20	00	00	00	00	.83
13	-09	-04	-04	-04	00	72	-10	40	00	-10	-07	00	-05	00	10	00	.72
14	-28	34	-08	03	00	43	15	45	00	-35	12	19	00	-20	-20	00	.86
15	10	14	05	-08	00	09	15	06	45	06	-14	-20	00	10	18	00	.38
16	-10	-01	-18	14	20	20	00	00	45	-07	-02	-10	10	00	00	00	.36
17	-26	11	-02	16	00	03	20	21	00	-05	-38	-07	-25	00	00	00	.40

APPENDIX B

**TABLES FOR THE TRANSLATION OF
PHYSICAL MEASUREMENTS INTO
AGE UNITS**

TABLES XVII, XVIII, XIX, XX

TABLE XVII

HEIGHT AGES FOR BOYS (in inches)
(After Olson)

(If a boy is 40.5 inches tall, his height of 40.5 is found in the body of the table; years at the top and months at the side; the age is 4 years 5 months, written 4-5.)

Months	Years															
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
0	33.8	36.9	39.3	42.0	45.4	47.9	49.7	51.3	53.5	55.2	57.0	59.6	61.9	64.3	66.8	
1	34.1	37.2	39.5	42.1	45.6	48.0	49.8	51.4	53.6	55.3	57.2	59.8	62.1	64.5	66.9	
2	34.4	37.4	39.8	42.1	45.8	48.2	49.9	51.6	53.8	55.4	57.4	60.0	62.3	64.7	67.0	
3	34.6	37.6	40.1	42.2	46.0	48.3	50.1	51.8	53.9	55.6	57.6	60.1	62.5	64.9	67.1	
4	34.8	37.9	40.3	42.6	46.2	48.5	50.2	52.0	54.1	55.7	57.8	60.3	62.7	65.1	67.2	
5	35.0	38.2	40.5	43.0	46.4	48.6	50.3	52.2	54.2	55.9	58.0	60.5	62.9	65.3	67.3	
6	35.2	38.4	40.7	43.3	46.6	48.8	50.5	52.4	54.3	56.1	58.3	60.7	63.1	65.5	67.4	
7	35.5	38.6	41.0	43.5	46.8	48.9	50.6	52.6	54.4	56.3	58.5	60.9	63.5	65.7	67.5	
8	35.9	38.9	41.3	43.7	47.0	49.1	50.7	52.8	54.5	56.4	58.7	61.1	63.7	65.9	67.6	
9	36.2	39.1	41.6	44.0	47.2	49.2	50.9	52.9	54.7	56.5	58.9	61.3	63.9	66.1	67.7	
10	36.4	39.2	41.7	44.5	47.4	49.4	51.0	53.1	54.8	56.6	59.2	61.5	64.1	66.3	67.8	
11	36.6	39.2	41.8	45.0	47.6	49.5	51.2	53.3	55.0	56.8	59.4	61.7	64.2	66.5	67.9	

TABLE XVIII
WEIGHT AGES FOR BOYS (in pounds)
(After Olson)

Months	Years															
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
0	26.3	30.8	34.9	37.9	42.9	50.4	54.4	60.6	65.9	71.9	78.3	88.3	98.1	110.0	121.2	
1	26.6	31.1	35.0	38.0	43.5	50.8	54.9	61.0	66.4	72.5	79.1	89.1	99.0	111.0	122.0	
2	26.9	31.4	35.1	38.2	44.1	51.1	55.4	61.5	66.9	73.0	80.0	89.9	100.0	112.0	122.8	
3	27.2	31.6	35.2	38.4	44.8	51.4	55.9	62.0	67.3	73.5	80.8	90.7	101.0	112.8	123.6	
4	27.6	32.0	35.4	38.8	45.5	51.7	56.5	62.4	67.8	74.0	81.7	91.5	102.0	113.6	124.4	
5	28.0	32.4	35.6	39.5	46.1	52.1	57.0	62.8	68.3	74.6	82.5	92.3	103.0	114.4	125.2	
6	29.4	32.0	35.8	40.2	46.7	52.4	57.5	63.3	68.8	75.1	83.3	93.1	104.0	115.2	126.0	
7	28.8	33.2	36.2	40.5	47.3	52.7	58.0	63.8	69.3	75.6	84.1	94.0	105.0	116.2	126.8	
8	29.2	33.6	36.7	40.7	48.0	53.0	58.5	64.2	69.8	76.1	84.9	94.8	106.0	117.2	127.6	
9	29.6	34.0	47.1	41.0	48.6	53.4	59.0	64.6	70.3	67.7	85.8	95.6	107.0	118.2	128.4	
10	30.0	34.3	37.4	41.6	49.2	53.7	59.5	65.0	70.8	77.3	86.6	96.4	108.0	119.2	129.2	
11	30.4	34.6	37.7	42.3	49.8	54.1	60.0	65.4	71.4	77.8	87.5	97.2	109.0	120.2	130.0	

TABLE XIX

HEIGHT AGES FOR GIRLS (in inches)
(After Olson)

Months	Years															
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
0	33.0	36.4	39.3	41.7	43.7	47.4	49.1	51.0	53.6	55.5	57.5	59.8	61.8	63.1	63.7	
1	33.3	36.7	39.5	41.9	43.9	47.6	49.2	51.3	53.8	55.6	57.6	60.0	61.9			
2	33.7	36.9	39.6	42.0	44.1	47.7	49.4	51.5	53.9	55.8	57.8	60.1	62.0			
3	34.1	37.1	39.8	42.2	44.3	47.9	49.5	51.7	54.1	56.0	58.0	60.3	62.1	63.3		
4	34.4	37.3	40.0	42.3	44.6	48.0	49.7	51.9	54.2	56.1	58.2	60.4	62.3			
5	34.6	37.5	40.2	42.3	44.9	48.2	49.8	52.1	54.3	56.3	58.4	60.6	62.4			
6	34.9	37.8	40.4	42.4	45.3	48.3	50.0	52.3	54.5	56.4	58.6	60.7	62.5	63.4	63.8	
7	35.2	38.0	40.7	42.6	45.7	48.5	50.1	52.5	54.7	56.5	58.8	60.9	62.6			
8	35.5	38.3	41.0	42.8	46.0	48.6	50.3	52.7	54.9	56.8	59.0	61.0	62.7			
9	35.7	38.5	41.2	42.9	46.4	48.7	50.5	52.9	55.0	57.0	59.2	61.2	62.8	63.6		
10	35.9	38.7	41.3	43.2	46.7	48.8	50.6	53.1	55.2	57.2	59.4	61.4	62.9			
11	36.2	39.0	41.5	43.4	47.0	49.0	50.8	53.3	55.3	57.3	59.6	61.6	63.0			

TABLE XX
WEIGHT AGES FOR GIRLS (in pounds)
(After Olson)

Months	Years															
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
0	24.6	28.8	32.2	36.1	40.3	50.2	53.8	61.2	69.2	75.8	83.7	96.3	106.0	118.0	123.0	
1	25.0	29.3	32.6	36.3	41.2	50.5	54.5	61.8	59.7	76.3	84.7	97.1	107.0	118.5	123.1	
2	25.4	29.7	33.1	36.6	42.0	50.8	55.1	62.5	70.3	77.1	85.8	97.9	108.0	119.0	123.2	
3	25.8	30.2	33.6	36.8	42.8	51.1	55.7	63.1	70.8	77.8	86.8	98.7	109.0	119.5	123.3	
4	26.1	30.5	33.7	37.1	43.6	51.4	56.3	63.8	71.4	78.4	87.9	99.5	110.0	120.0	123.4	
5	26.5	30.8	33.9	37.3	44.5	51.7	56.9	64.4	71.9	79.0	88.9	100.3	111.0	120.5	123.5	
6	26.9	31.0	34.0	36.6	45.3	52.0	57.6	65.1	72.5	79.6	90.0	101.1	112.0	121.0	123.6	
7	27.2	31.2	34.5	38.0	46.1	52.3	58.2	65.7	73.0	80.3	91.0	101.9	113.0	121.3	123.7	
8	27.6	31.3	35.0	38.5	46.9	52.6	58.8	66.4	73.6	81.0	92.1	102.7	114.0	121.7	123.8	
9	27.9	31.5	35.4	38.9	47.7	52.9	59.4	67.1	74.1	81.7	93.1	103.5	115.0	122.0	123.9	
10	28.2	31.7	35.6	39.4	47.5	53.2	60.0	67.8	74.7	82.4	94.2	104.3	116.0	122.3	124.0	
11	28.5	32.0	35.8	39.8	49.3	53.5	60.6	68.5	75.2	83.0	95.2	105.1	117.0	122.7	124.0	

APPENDIX C

**OHIO YOUTHS NEEDS QUESTIONNAIRE
TABULATED RESPONSES**

School _____

Name _____

The questions on the following pages are to help us understand the feelings and wants of young people. Your answers will be included with answers from many other young people like you. There are no "right" or "wrong" answers. Everyone will answer differently. Just try to put down what you really think and really want. ALL YOUR ANSWERS ARE CONFIDENTIAL.

1. Luke almost always stays out of trouble.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
2. Harry can get along very well without a boy-friend.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
3. Everybody likes Richard.
 Am I like Richard?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
4. Don makes sure what older people think about it before doing anything.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
5. Herby has a girl who thinks he is nicer than the other boys.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
6. Charles can often make his parents change their minds.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
7. All the boys in Tim's gang think he is a swell guy to have around.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
8. Edward's teachers do favors for him and help him a lot.
 Am I like Edward?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
9. Hank has a girl who seems to understand him.
 Am I like Hank?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
10. Bill is always welcome to go around with a bunch of boys he knows.
 Am I like Bill?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure

11. Mac doesn't always do what the other boys in his gang do.

Am I like Mac?.....	Yes	No	Not Sure
Do I want to be like him?.....	Yes	No	Not Sure
12. Larry is different from the other boys.

Am I like him?.....	Yes	No	Not Sure
Do I want to be like him?.....	Yes	No	Not Sure
13. William doesn't have to study to get good marks.

Am I like him?.....	Yes	No	Not Sure
Do I want to be like him?.....	Yes	No	Not Sure
14. Harold is seldom shy with a girl.

Am I like him?.....	Yes	No	Not Sure
Do I want to be like him?.....	Yes	No	Not Sure
15. Glen and another fellow almost always go around together and do lots of things.

Am I like Glen?.....	Yes	No	Not Sure
Do I want to be like him?.....	Yes	No	Not Sure
16. The boys in Murray's crowd think a lot of him.

Am I like Murray?.....	Yes	No	Not Sure
Do I want to be like him?.....	Yes	No	Not Sure
17. Alfred's teachers are always finding fault with him.

Am I like Alfred?.....	Yes	No	Not Sure
Do I want to be like him?.....	Yes	No	Not Sure
18. Ted goes ahead and does some things that the other boys and girls think he shouldn't do.

Am I like Ted?.....	Yes	No	Not Sure
Do I want to be like him?.....	Yes	No	Not Sure
19. When Gus does something, he does the best he can.

Am I like him?.....	Yes	No	Not Sure
Do I want to be like him?.....	Yes	No	Not Sure
20. Other boys often ask Red to do things with them.

Am I like Red?.....	Yes	No	Not Sure
Do I want to be like him?.....	Yes	No	Not Sure
21. The people at home treat Steve like a grown man.

Am I like Steve?.....	Yes	No	Not Sure
Do I want to be like him?.....	Yes	No	Not Sure
22. James doesn't want a job where he will loaf.

Am I like him?.....	Yes	No	Not Sure
Do I want to be like him?.....	Yes	No	Not Sure
23. Will has a girl-friend who gives him sympathy and encouragement.

Am I like Will?.....	Yes	No	Not Sure
Do I want to be like him?.....	Yes	No	Not Sure

24. Harvey can talk to his family about his thoughts and problems.
Am I like Harvey?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
25. Leroy does almost everything the other boys and girls do.
Am I like Leroy?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
26. Chuck has one loyal friend who will stand by him no matter what they say.
Am I like Chuck?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
27. Al runs almost every activity that goes on in his school.
Am I like him?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
28. Arnold gets some of the best marks in his class.
Am I like him?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
29. Gary does most of the things he is supposed to do.
Am I like him?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
30. The boys and girls seldom say anything bad about Albert.
Am I like Albert?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
31. Jim is president of quite a few clubs in his school.
Am I like him?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
32. Ron has succeeded in getting older people to treat him like an adult.
Am I like Ron?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
33. When a crowd of boys and girls are having fun together, they like to have Ray along.
Am I like Ray?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
34. Chris can get grown-ups to do some things he wants.
Am I like Chris?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
35. Sam spends a lot of time with a swell crowd of boys and girls who are a lot of fun.
Am I like Sam?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
36. The boys and girls often let Melvin know how much they like him.
Am I like Melvin?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure

37. Kenneth is like his boy-friend in many ways.
 Am I like Kenneth?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
38. Older people usually know how Andrew feels about things.
 Am I like Andrew?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
39. Everybody says Bob will do very well for himself after he finishes school.
 Am I like Bob?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
40. When Allan tries, he can get his parents to see some things his way.
 Am I like Allan?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
41. Joe has a boy-friend who doesn't like some of the things Joe does.
 Am I like Joe?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
42. Frank has a lot of influence on his girl-friend.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
43. Jerry has a chance to show how well he really can do.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
44. Louis goes to his family for advice; he doesn't decide many things all by himself.
 Am I like Louis?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
45. Wilbur's closest friend thinks a great deal of him.
 Am I like Wilbur?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
46. The other boys listen to Hal when he makes suggestions.
 Am I like Hal?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
47. Pat can succeed at most things better than his boy-friend.
 Am I like Pat?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
48. Most of Calvin's teachers are very fond of him.
 Am I like Calvin?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
49. Other boys say that Gordon is the strongest boy in town.
 Am I like Gordon?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure

50. Older people like to have Sidney around.
Am I like Sidney?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
51. Phil is the leader when boys and girls get together.
Am I like him?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
52. Barry's teachers can't tell him what to do anymore.
Am I like Barry?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
53. Older people sometimes treat Ralph as if he were a younger boy.
Am I like Ralph?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
54. Sometimes the other boys can't figure out Ben.
Am I like Ben?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
55. Edwin has a girl who thinks he is pretty special.
Am I like Edwin?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
56. Nothing stops Hugo from doing the best he can.
Am I like him?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
57. Walter does what his parents expect him to do.
Am I like Walter?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
58. Mark feels at home with older people.
Am I like him?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
59. Lee gets help, sympathy, and advice from the boys in his crowd.
Am I like Lee?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
60. Tom has a girl-friend who seldom tells him what to do.
Am I like Tom?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
61. Art's teachers feel that he is a fine person.
Am I like Art?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
62. Herb usually succeeds when he works hard for what he wants.
Am I like him?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure
63. Carl behaves like older people want him to.
Am I like Carl?..... Yes No Not Sure
Do I want to be like him?..... Yes No Not Sure

64. Michael's girl tells him she is proud of him.
 Am I like Michael?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
65. The boys and girls almost always help Dan when he needs help.
 Am I like Dan?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
66. Donald's parents show him in many ways that they love him.
 Am I like Donald?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
67. It bothers Floyd if he doesn't do his best.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
68. The other boys and girls look up to and admire Jack.
 Am I like Jack?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
69. Boys and girls sometimes make fun of George.
 Am I like George?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
70. Pete and his family enjoy doing many things together.
 Am I like Pete?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
71. Nelson gets his way when he really wants it.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
72. Douglas does most things rather well.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
73. Bert goes to one of the best schools in this part of the state.
 Am I like Bert?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
74. Fred sometimes breaks school rules because the other boys do.
 Am I like Fred?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
75. Vic's family let him make up his own mind about many things.
 Am I like Vic?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
76. Older people think a lot of Howard.
 Am I like Howard?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
77. Instead of just getting by, Adam tries to do his best.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure

78. Paul's family approves of most things he does.
 Am I like Paul?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
79. Forrest has a girl-friend all his own.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
80. Adults keep telling David how he should act.
 Am I like David?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
81. Earl doesn't like to do things that are too easy for him.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
82. Arthur's teachers give him praise now and then.
 Am I like Arthur?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
83. Craig can date almost any of the girls he knows whenever he tries.
 Am I like him?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
84. Oliver and his boy-friend usually do what Oliver thinks is best.
 Am I like Oliver?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
85. Sandy and his girl go to the same places and do the same things the other couples do.
 Am I like Sandy?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
86. Lewis has a girl who lets him know that she really likes him.
 Am I like Lewis?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
87. Henry's family think he is just about okay in every way.
 Am I like Henry?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
88. Mike goes to his best friend when he has something to get off his chest.
 Am I like Mike?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
89. Robert almost always asks his boy-friend what he should do about some things.
 Am I like Robert?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure
90. Andy has a boy-friend who thinks Andy is tops in just about everything.
 Am I like Andy?..... Yes No Not Sure
 Do I want to be like him?..... Yes No Not Sure

The questions on the following pages are to help us understand the feelings and wants of young people. Your answers will be included with answers from many other young people like you. There are no "right" or "wrong" answers. Everyone will answer differently. Just try to put down what you really think and really want. ALL YOUR ANSWERS ARE CONFIDENTIAL.

1. Margaret almost always stays out of trouble.
Am I like her?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
2. Joyce can get along very well without a girl-friend.
Am I like her?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
3. Everybody likes Marjorie.
Am I like Marjorie?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
4. Joan makes sure what older people think about it before doing anything.
Am I like her?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
5. June has a boy-friend who thinks she is nicer than the other girls.
Am I like June?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
6. Alice can often make her parents change their minds.
Am I like Alice?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
7. All the girls in Mabel's crowd think she is a swell person to have around.
Am I like Mabel?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
8. Betty's teachers do favors for her and help her a lot.
Am I like Betty?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
9. Jane has a boy-friend who seems to understand her.
Am I like Jane?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
10. Ruth is always welcome to go around with a bunch of girls she knows.
Am I like Ruth?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure

11. Arlene doesn't always do what the other girls in her crowd do.

Am I like Arlene?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
12. Beatrice is different from the other girls.

Am I like her?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
13. Clara doesn't have to study to get good marks.

Am I like her?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
14. Janet is seldom shy with a boy.

Am I like her?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
15. Peg and another girl almost always go around together and do lots of things.

Am I like Peg?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
16. The girls in Anne's crowd think a lot of her.

Am I like Anne?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
17. Esther's teachers are always finding fault with her.

Am I like Esther?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
18. Lana goes ahead and does some things that the other girls and boys think she shouldn't do.

Am I like Lana?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
19. When Kathleen does something, she does the best she can.

Am I like her?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
20. Other girls often ask Joy to do things with them.

Am I like Joy?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
21. The people at home treat Rose like a grown woman.

Am I like Rose?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
22. Louise doesn't want a job where she will loaf.

Am I like her?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
23. Cora has a boy friend who gives her sympathy and encouragement.

Am I like Cora?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure

24. May can talk to her family about her thoughts and problems.

Am I like May?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
25. Vicky does almost everything the other girls and boys do.

Am I like Vicky?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
26. Velma has one loyal friend who will stand by her no matter what they say.

Am I like Velma?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
27. Sue runs almost every activity that goes on in her school.

Am I like her?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
28. Mildred gets some of the best marks in her class.

Am I like her?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
29. Lillian does most of the things she is supposed to do.

Am I like her?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
30. The girls and boys seldom say anything bad about Dorothy.

Am I like Dorothy?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
31. Bess is president of quite a few clubs in her school.

Am I like her?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
32. Elizabeth has succeeded in getting older people to treat her like an adult.

Am I like Elizabeth?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
33. When a crowd of girls and boys are having fun together, they like to have Emily along.

Am I like Emily?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
34. Ellen can get grown-ups to do some things she wants.

Am I like Ellen?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
35. Daisy spends a lot of time with a swell crowd of girls and boys who are a lot of fun.

Am I like Daisy?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure
36. The girls and boys often let Lois know how much they like her.

Am I like Lois?.....	Yes	No	Not Sure
Do I want to be like her?.....	Yes	No	Not Sure

37. Gladys is like her girl-friend in many ways.
 Am I like Gladys?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
38. Older people usually know how Sally feels about things.
 Am I like Sally?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
39. Everybody says Wilma will do very well for herself after she finishes school.
 Am I like Wilma?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
40. When Gail tries, she can get her parents to see some things her way.
 Am I like Gail?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
41. Sara has a girl-friend who doesn't like some of the things Sara does.
 Am I like Sara?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
42. Lil has a lot of influence on her boy-friend.
 Am I like her?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
43. Edna has a change to show how well she really can do.
 Am I like her?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
44. Fran goes to her family for advice; she doesn't decide many things all by herself.
 Am I like Fran?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
45. Estelle's closest friend thinks a great deal of her.
 Am I like Estelle?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
46. The other girls listen to Kay when she makes suggestions.
 Am I like Kay?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
47. Jessie can succeed at most things better than her girl-friend.
 Am I like Jessie?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
48. Most of Gloria's teachers are very fond of her.
 Am I like Gloria?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
49. Other girls say that Dawn is the prettiest girl in town.
 Am I like Dawn?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure

50. Older people like to have Bette around.
Am I like Bette?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
51. Martha is the leader when boys and girls get together.
Am I like her?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
52. Mary Lou's teachers can't tell her what to do anymore.
Am I like Mary Lou?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
53. Older people sometimes treat Janice as if she were a younger girl.
Am I like Janice?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
54. Sometimes the other girls can't figure out Mary.
Am I like Mary?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
55. Patty has a boy-friend who thinks she is pretty special.
Am I like Patty?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
56. Nothing stops Caroline from doing the best she can.
Am I like her?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
57. Connie does what her parents expect her to do.
Am I like Connie?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
58. Emma feels at home with older people.
Am I like her?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
59. Dot gets help, sympathy, and advice from the girls in her crowd.
Am I like Dot?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
60. Julie has a boy-friend who seldom tells her what to do.
Am I like Julie?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
61. Nancy's teachers feel that she is a fine person.
Am I like Nancy?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
62. Kitty usually succeeds when she works hard for what she wants.
Am I like her?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure
63. Vivian behaves like older people want her to.
Am I like Vivian?..... Yes No Not Sure
Do I want to be like her?..... Yes No Not Sure

64. Harriet's boy-friend tells her he is proud of her.
 Am I like Harriet?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
65. The boys and girls almost always help Eva when she needs help.
 Am I like Eva?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
66. Marcia's parents show her in many ways that they love her.
 Am I like Marcia?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
67. It bothers Virginia if she doesn't do her best.
 Am I like her?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
68. The other boys and girls look up to and admire Phyllis.
 Am I like Phyllis?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
69. Girls and boys sometimes make fun of Barbara.
 Am I like Barbara?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
70. Elaine and her family enjoy doing many things together.
 Am I like Elaine?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
71. Pauline gets her way when she really wants it.
 Am I like her?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
72. Winifred does most things rather well.
 Am I like her?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
73. Nell goes to one of the best schools in this part of the state.
 Am I like her?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
74. Jean sometimes breaks school rules because the other girls do.
 Am I like Jean?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
75. Lila's family let her make up her own mind about many things.
 Am I like Lila?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
76. Older people think a lot of Jennifer.
 Am I like Jennifer?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
77. Instead of just getting by, Dolores tries to do her best.
 Am I like her?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure

78. Nora's family approves of most things she does.
 Am I like Nora?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
79. Roberta has a boy-friend all her own.
 Am I like her?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
80. Adults keep telling Shirley how she should act.
 Am I like Shirley?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
81. Greta doesn't like to do things that are too easy for her.
 Am I like her?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
82. Marie's teachers give her praise now and then.
 Am I like Marie?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
83. Rita can date almost any of the boys she knows whenever she tries.
 Am I like her?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
84. Laura and her girl-friend usually do what Laura thinks is best.
 Am I like Laura?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
85. Eleanor and her boy-friend go to the same places and do the same things the other couples do.
 Am I like Eleanor?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
86. Cora has a boy-friend who lets her know that he really likes her.
 Am I like Cora?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
87. Millie's family think she is just about okay in every way.
 Am I like Millie?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
88. Mary Ann goes to her best friend when she has something to get off her mind.
 Am I like Mary Ann?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
89. Dora almost always asks her girl-friend what she should do about some things.
 Am I like Dora?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure
90. Grace has a girl-friend who thinks Grace is tops in just about everything.
 Am I like Grace?..... Yes No Not Sure
 Do I want to be like her?..... Yes No Not Sure

Item No. 1

131

Almost always stays out of trouble.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	1	2	4	6	8	9	30
N/N					1	2	3
Y/N	1						1
N/Y	2		2	3	1	5	13
NS/NS			1				1
Y/NS							
N/NS		1					1
NS/Y			1				1
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
3	8	2	2	8	8	31	61
2		2		2	2	8	11
							1
		1		1	3	5	18
			1		1	2	3
					1	1	1
					1	1	2
					2	2	3

Can get along very well without a girl- (boy) friend.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	1	1	1	1	4	3	11
N/N	2	1	4	5	4	7	23
Y/N			2	1	1	1	5
N/Y			1	1	1	2	5
NS/NS							
Y/NS				1			1
N/NS						1	1
NS/Y						1	1
NS/N	1	1				1	3

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	1		1		1		3	14
	3	6	4		9	15	37	60
								5
		1		1	1		3	8
				1		1	2	3
								1
								1
	1	1		1		2	5	8

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2		1	2	7	1	13
N/N						1	1
Y/N							
N/Y	2		2	6	2	6	18
NS/NS							
Y/NS							
N/NS		1				1	2
NS/Y		2	5	1	1	7	16
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
3			2	3	1	9	22
				1		1	2
	1	3	1	3	9	17	35
		1				1	1
							2
2	7	1		4	8	22	38

Item No. 4 **Joan (Don) makes sure what older people think about it before doing anything.** 134

	<u>BOYS</u>							<u>GIRLS</u>							
	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
Y/Y	2	1	1	8	7	4	23	3	5	3	1	7	10	29	52
N/N	1		4			4	9		1			2	3	6	15
Y/N															
N/Y	1	2	2		2	3	10	1	1	1		1	1	5	15
NS/NS					1	1	2						2	2	4
Y/NS												1		1	1
N/NS			1			1	2			1				1	3
NS/Y				1		2	3	1	1		2		1	5	8
NS/N						1	1						1	1	2

Item No. 5 June (Herby) has a boy-friend (girl-friend) who thinks she (he) is nicer than the other girls (boys).

	<u>BOYS</u>							<u>GIRLS</u>							
	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
Y/Y	1		3	3	4	2	13	3	2		2	4	5	16	29
N/N		1		1	2	3	7	2		1		1	2	6	13
Y/N															
N/Y	3	2	4	1	4	3	17		3	2	1	2	4	12	29
NS/NS						2	2		2				1	3	5
Y/NS															
N/NS						1	1			1		2	2	5	6
NS/Y			1	4		4	9		1	1		2	3	7	16
NS/N						1	1						1	1	2

Item No. 6 Alice (Charles) can often make her (his) parents change their minds.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2				2	3	7
N/N	1	2	5	4	4	9	25
Y/N				2			2
N/Y			1	2	1		4
NS/NS						1	1
Y/NS	1	1	1		1	3	7
N/NS				1			1
NS/Y				1			1
NS/N			1	1			2

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	1	1	3	2	3	6	16	23
	3	3	2		5	4	17	42
						1	1	3
	1	2			3	2	8	12
						2	2	3
				1			1	8
		1				1	2	3
						1	1	2
		1				1	2	4

Item No. 7 All the girls (boys) in Mabel's crowd (Tim's gang) think¹³⁷
she (he) is a swell person (guy) to have around.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	1	2	3	4	2	14
N/N						1	1
Y/N							
N/Y	1		2	2	3	2	10
NS/NS						2	2
Y/NS							
N/NS	1					1	2
NS/Y		2	4	4	3	8	21
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	3		1	8	2	18	32
							1
		1	1		2	4	14
					1	1	3
							2
1	5	4	1	3	13	27	48

Item No. 8

Betty's (Edward's) teachers do favors for her (him) and help her (him) a lot.

138

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2		4	3	4	3	16
N/N	2	1	3	4	5	3	18
Y/N						1	1
N/Y				1	1	2	4
NS/NS						1	1
Y/NS			1				1
N/NS						1	1
NS/Y		1		1		1	3
NS/N		1				4	5

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
1	5	3	2	6	9	26	42
2	2	2		4	2	12	30
							1
1				1	2	4	8
			1			1	2
					2	2	3
1						1	2
	1				3	4	7
							5

Item No. 9 Jane (Hank) has a boy-friend (girl) who seems to understand her (him).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	1	2	4	3	3	16
N/N				1	1	1	3
Y/N							
N/Y	1	2	4	3	5	7	22
NS/NS				1			1
Y/NS							
N/NS			1		1	2	4
NS/Y			1			3	4
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
2	5	2	2	4	4	19	35
2				1	1	4	7
1	2	3	1	3	5	15	37
	1					1	2
				1	3	4	8
				2	5	7	11

Item No. 10 Ruth (Bill) is always welcomed to go around with a bunch of girls (boys) she (he) knows.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	2	4	5	8	9	31
N/N					1		1
Y/N							
N/Y	1		1	2		3	7
NS/NS						2	2
Y/NS							
N/NS							
NS/Y		1	3	2	1	2	9
NS/N							

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	5	8	5	2	11	16	47	78
								1
						1	1	8
								2
				1		1	2	11

Item No. 11 141
 Arlene (Mac) doesn't always do what the other girls (boys)
 in her crowd (his gang) do.

	BOYS							GIRLS							
	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
Y/Y	4	2	5	5	2	13	31	3	5	4	3	8	5	28	59
N/N				2	2	1	5		1			3	3	7	12
Y/N			2		4		6						6	6	12
N/Y								1		1				2	2
NS/NS			1			1	2		1				2	3	5
Y/NS		1		1		1	3	1	1				2	4	7
N/NS					1		1								1
NS/Y				1			1								1
NS/N					1		1								1

Item No. 12 Beatrice (Larry) is different from the other girls (boys). 142

	BOYS							GIRLS							
	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
Y/Y	1		1	2	1		5	1	1	2		1		5	10
N/N	1	1	2	4	5	10	23	4	5	1		10	8	28	51
Y/N		1	1		1	3	6						2	2	8
N/Y										1				1	1
NS/NS			1		1	1	3		1		1		2	4	7
Y/NS															
N/NS		1	1				2			1				1	3
NS/Y															
NS/N	2		2	3	2	2	11		1		2		6	9	20

Item No. 13 Clara (William) doesn't have to study to get good marks.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	1	3	3	3	6	19
N/N		1	3	1	3	2	10
Y/N				1	1		2
N/Y	1	1		2	2	1	7
NS/NS				1			1
Y/NS			2			1	3
N/NS						2	2
NS/Y				1	1	3	5
NS/N						1	1

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	1	4			4	3	12	31
	2	2	1	1	2	5	13	23
			2		1		3	5
	2	2	1	1	3	7	16	23
				1		1	2	3
								3
					1	1	2	4
			1			1	2	7
								1

Item No. 14 Janet (Harold) is seldom shy with a boy (girl).

144

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3		1	3	2	4	13
N/N		1	3	1	2		7
Y/N				1			1
N/Y	1	2	3	3	4	10	23
NS/NS			1				1
Y/NS							
N/NS						1	1
NS/Y				1	2		3
NS/N						1	1

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
3	3	2	1	4	2	15	28
		1	1		2	4	11
	1		1			2	3
2	1	2		7	9	21	44
	1					1	2
					1	1	1
	1				2	3	4
	1				2	3	6
							1

Item No. 15 Peg (Glen) and another girl (fellow) almost always go around together and do lots of things.

145

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	2	4	4	9	10	31
N/N			4	1		4	9
Y/N	1					1	2
N/Y	1	1		4	1	1	8
NS/NS							
Y/NS							
N/NS							
NS/Y							
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
1	7	2	3	10	14	32	63
3		2		1	5	11	20
		1			1	2	4
1					1	2	10
					1	1	1
	1					1	1
					1	1	1

Item No. 16 The girls in Anne's crowd (Murray's crowd) think a lot of her (him).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	1	2	1	4	1	11
N/N						1	1
Y/N							
N/Y	2		1	4	2	4	13
NS/NS					1	2	3
Y/NS							
N/NS							
NS/Y		2	5	4	3	8	22
NS/N							

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	4	5		2	6	4	21	32
						1	1	2
			1	1		2	4	17
								3
	1	3	4		5	11	24	46

Item No. 17

Esther's (Alfred's) teachers are always finding fault with her (him).

147

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y							
N/N	4	3	8	6	10	13	44
Y/N				2			2
N/Y							
NS/NS						1	1
Y/NS						1	1
N/NS							
NS/Y							
NS/N				1		1	2

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
3	8	5	2	11	17	46	90
1					1	2	4
							1
							1
1			1			2	4

Item No. 18 Lana (Ted) goes ahead and does some things that the other girls (boys) and boys (girls) think she (he) shouldn't do.

	<u>BOYS</u>							<u>GIRLS</u>							
	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
Y/Y			3		1	3	7					2	1	3	10
N/N	3	3	2	5	9	8	30	5	7	4	2	9	12	39	69
Y/N									1					1	1
N/Y															
NS/NS				1		3	4			1	1		1	3	7
Y/NS	1			2			3								3
N/NS													2	2	2
NS/Y															
NS/N			3	1		2	6						2	2	8

Item No. 19 When Kathleen (Gus) does something, she (he) does the best she (he) can.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	2	6	5	6	12	34
N/N						1	1
Y/N							
N/Y				2	3		5
NS/NS							
Y/NS							
N/NS							
NS/Y	1	1	2	2	1	3	10
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
5	8	3	2	10	13	41	75
							1
		1		1	3	5	10
		1				1	1
			1		2	3	13

Item No. 20

Other girls (boys) often ask Joy (Red) to do things with her (him).

150

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	3	4	7	9	9	34
N/N							
Y/N							
N/Y	2		1	2	1	4	10
NS/NS						1	1
Y/NS			1				1
N/NS						1	1
NS/Y			2			1	3
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	6	5	2	9	13	39	73
				1		1	1
1				1	2	4	14
							1
							1
							1
	2		1		3	6	9

Item No. 21

The people at home treat Rose (Steve) like a grown woman
(man).

151

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	1	5	7	6	3	24
N/N							
Y/N							
N/Y		2	2	1	1	7	13
NS/NS			1		1	3	5
Y/NS							
N/NS					1	2	3
NS/Y	2			1	1	1	5
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
1	1	1	2	5	7	17	41
3	3	1		1	6	14	14
	1	1		5		7	20
1	1	1	1		1	5	10
	1				4	5	8
	1	1				2	7

Item No. 22 Louise (James) doesn't want a job where she (he) will loaf.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	3	6	8	8	12	39
N/N						2	2
Y/N							
N/Y			1		2	2	5
NS/NS	1			1			2
Y/NS							
N/NS							
NS/Y	1		1				2
NS/N							

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	4	6	4	1	9	15	39	78
	1	1					2	4
						1	1	1
		1			1	1	3	8
			1	2		1	4	6
					1		1	3

Item No. 24 May (Harvey) can talk to her family about her (his) thoughts and problems.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	1	6	7	9	13	39
N/N		1	1			1	3
Y/N							
N/Y	1	1	1	1		1	5
NS/NS							
Y/NS							
N/NS					1		1
NS/Y				1		1	2
NS/N							

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	5	5	2	3	6	14	35	74
		1			1		2	5
		1	1		2	2	6	11
					1	1	2	2
								1
		1	2		1	1	5	7

Item No. 25 Vicky (Leroy) does almost everything the other girls and boys do.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	1	3	6	7	7	26
N/N	1	1	2	2	1	5	12
Y/N							
N/Y	1		1		2	1	5
NS/NS						2	2
Y/NS							
N/NS		1				1	2
NS/Y			1	1			2
NS/N			1				1

GIrlS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	6	3	2	8	12	35	61
	1	2	1	2	2	11	20
				1	1	2	7
					2	2	4
1					1	2	4
	1					1	3
							1

Item No. 26 Velma (Chuck) has one loyal friend who will stand by her (him) no matter what they say.

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
2	7	3	2	11	6	31	56
		1			2	3	4
2	1	1			3	7	19
			1		1	2	2
1						1	1
					5	5	17
					1	1	1

Item No. 27

157

Sue (Al) runs almost every activity that goes on in her (his) school.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y							
N/N	2	1	6	3	5	13	30
Y/N							
N/Y	1			6	2	1	10
NS/NS						1	1
Y/NS							
N/NS	1	2			1	1	5
NS/Y			2				2
NS/N					2		2

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
				2		2	2
5	2	4		8	9	28	58
			1	1	3	5	15
	1				1	2	3
	2	1	2		5	10	15
	2					2	4
	1					1	3

Mildred (Arnold) gets some of the best marks in her
(his) class.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	4		7	8	5	13	37
N/N		1	1		1		3
Y/N							
N/Y				1	2	2	5
NS/NS							
Y/NS						1	1
N/NS							
NS/Y		2			2		4
NS/N							

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	4	7	5	1	7	11	35	72
		1					1	4
						1	1	1
				1	3	4	8	13
						1	1	1
								1
	1			1	1	1	4	8

Lillian (Gary) does most of the things she (he) is supposed to do.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	1	5	8	8	12	37
N/N		1	1			1	3
Y/N							
N/Y		1		1	1	1	4
NS/NS			1				1
Y/NS							
N/NS							
NS/Y	1		1		1	2	5
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	8	4	3	10	14	43	80
1						1	4
					1	1	5
					1	1	2
		1				1	1
				1	1	2	7
					1	1	1

The girls and boys seldom say anything bad about Dorothy
(Albert).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2		2	3	6	2	15
N/N			1				1
Y/N							
N/Y	2	1	1	2	2	1	9
NS/NS				1		2	3
Y/NS							
N/NS							
NS/Y		2	4	3	2	11	22
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
2	6	1	2	6	6	23	38
1				1		2	3
1	1	2			1	5	14
		1				1	4
1	1	1	1	4	11	19	41

Bess (Jim) is president of quite a few clubs in her (his) school.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y			1	1			2
N/N	1	1	2	2	3	8	17
Y/N							
N/Y	3	2	3	6	6	5	25
NS/NS							
Y/NS			1				1
N/NS			1		1	3	5
NS/Y							
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
2				2		4	6
1	3			6	4	14	31
2	3	4	1	2	8	20	45
			1		1	2	2
							1
	2	1	1	1	5	10	15

Elizabeth (Ron) has succeeded in getting older people to treat her (him) like an adult.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	1	5	6	8	7	29
N/N			1	1			2
Y/N							
N/Y	1	2		1	1	4	9
NS/NS					1	2	3
Y/NS							
N/NS			1				1
NS/Y	1		1	1		3	6
NS/N							

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	1	3	3	2	4	7	20	49
	1	2			3	2	8	10
		1	2		2	1	6	15
	2	2				2	6	9
					1	5	6	7
	1			1	1	1	4	10

When a crowd of girls and boys are having fun together,
they like to have Emily (Ray) along.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	1	5	4	4	5	21
N/N	1						1
Y/N							
N/Y	1	1	1	1	1	4	9
NS/NS					1	1	2
Y/NS							
N/NS							
NS/Y		1	2	4	4	6	17
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	4	1	2	9	6	26	47
							1
	2		1	1	1	5	14
							2
1	2	4		1	11	19	36

Ellen (Chris) can get grown-ups to do some things she (he) wants.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	3	3	6	7	12	34
N/N			1		1	1	3
Y/N							
N/Y			1	2	1	1	5
NS/NS	1		1		1	1	4
Y/NS			1			1	2
N/NS							
NS/Y			1				1
NS/N				1			1

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	5	5	3	8	11	38	70
1	1			1		3	6
				1	1	2	7
	2			1	3	6	10
					1	1	3
					1	1	2
					1	1	2

Daisy (Sam) spends a lot of time with a swell crowd of girls and boys who are a lot of fun.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	2	7	5	4	9	29
N/N	1				1	1	3
Y/N							
N/Y	1	1	1	3	5	5	16
NS/NS							
Y/NS							
N/NS							
NS/Y				1		1	2
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	6	4	2	9	11	36	65
		1			2	3	6
	1		1	2	2	6	22
					1	1	1
					1	1	1
1	1				1	3	5

The girls and boys often let Lois (Melvin) know how much they like her (him).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	1	2	2	4	2	13
N/N	1				1	5	7
Y/N							
N/Y	1	1	4	5	3	5	19
NS/NS			1		1	2	4
Y/NS							
N/NS						1	1
NS/Y		1	1	2	1	1	6
NS/N							

GRIS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	7	2	1	5	7	26	39
				2	2	4	11
1		3	1	1	2	8	27
	1			2	1	4	8
					3	3	4
			1	1	2	4	10
					1	1	1

Gladys (Kenneth) is like her (his) girl-friend (boy-friend)
in many ways.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	4	2	4	5	6	9	30
N/N			2	3		2	7
Y/N						1	1
N/Y			1		2		3
NS/NS			1	1		2	4
Y/NS					1	2	3
N/NS		1					1
NS/Y					1		1
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
3	3	3	1	7	10	27	57
2	4	1	1	1	3	12	19
				1		1	2
					1	1	4
				1	1	2	6
		1			2	3	6
	1		1	1		3	4
					1	1	2

Older people usually know how Sally (Andrew) feels about things.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	2	5	5	7	6	26
N/N			1	2		4	7
Y/N					1		1
N/Y						2	2
NS/NS	2			1	1	3	7
Y/NS				1	1		2
N/NS			1				1
NS/Y		1	1			1	3
NS/N						1	1

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
3	4	4	2	1	6	20	46
2				1	3	6	13
					2	2	3
	2	1		5	1	9	11
	1		1	2	2	6	13
	1			1	2	4	6
							1
				1	2	3	6
							1

When Gail (Allan) tries, she (he) can get her (his) parents
to see some things her (his) way.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	4	2	2	7	7	12	34
N/N			1			2	3
Y/N							
N/Y			2	2	1	1	6
NS/NS						1	1
Y/NS			1		1		2
N/NS		1	1		1		3
NS/Y							
NS/N			1				1

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	5	5	3	9	9	36	70
	1				3	4	7
	1			2	3	6	12
							1
					1	1	3
	1				1	2	5
					1	1	1
							1

Sara (Joe) has a girl-friend (boy-friend) who doesn't like some of the things Sara (Joe) does.

	<u>BOYS</u>							<u>GIRLS</u>							
	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
Y/Y	1	3	3	1	4	6	18	2	1	2	1	5	5	16	34
N/N	1		1	1	2	3	8		4			2	5	11	19
Y/N	1		4	3	1	4	13	2	1	3	2	2	4	14	27
N/Y				1	1		2					1		1	3
NS/NS	1			1		2	4		1					1	5
Y/NS				1	1	1	3	1				1	1	3	6
N/NS					1		1						1	1	2
NS/Y									1					1	1
NS/N				1			1						2	2	3

Lil (Frank) has a lot of influence on her boy-friend
(girl-friend).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	1		2	2	3	1	9
N/N	1		4	2	4	8	19
Y/N							
N/Y	2	1	1	2	2	4	12
NS/NS		1		1		2	4
Y/NS							
N/NS		1	1	1		1	4
NS/Y				1	1		2
NS/N							

GLRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
2	1		1	2	2	8	17
1	1	2		3	9	16	35
1						1	1
	1	2	1	2	1	7	19
	2		1	1	2	6	10
1						1	1
	3			3	2	8	12
					1	1	3
		1			1	2	2

Edna (Jerry) has a chance to show how well she (he) can really do.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	3	5	8	9	9	37
N/N						1	1
Y/N							
N/Y			2		1	3	6
NS/NS			1			1	2
Y/NS							
N/NS							
NS/Y	1			1		2	4
NS/N							

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	4	3	2	2	9	12	32	69
								1
			1		1	2	4	10
		4	2	1	1	2	10	12
						1	1	1
	1	1				1	3	7

Fran (Louis) goes to her (his) family for advice; she
(he) doesn't decide many things all by herself (himself).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y		1	1		2	3	7
N/N	2	2	5	6	4	9	28
Y/N						1	1
N/Y	1		1		1		3
NS/NS	1						1
Y/NS					2		2
N/NS			1	2	1	1	5
NS/Y							
NS/N				1		2	3

GRIS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
1	4	2	2	3	7	19	26
3	2	2		6	5	18	46
		1			1	2	3
	1			1		2	5
			1	1	3	5	6
					1	1	3
1	1				1	3	8
							3

Estelle's (Wilbur's) closest friend thinks a great deal
of her (him).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3		6	3	7	4	23
N/N							
Y/N							
N/Y			1	1		1	3
NS/NS	1					1	2
Y/NS							
N/NS							
NS/Y		3	1	5	3	10	22
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
2	7	2	2	11	13	37	60
1						1	1
1		1			2	4	7
	1					1	3
1		2	1		3	7	29

Jessie (Pat) can succeed at most things better than her
girl-friend (boy-friend).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	1	3	3	1	4	14
N/N			1	1	3	3	8
Y/N				1	1		2
N/Y	2	1	2	1	3	2	11
NS/NS			1	1	1	2	5
Y/NS			1			2	3
N/NS					1	1	2
NS/Y		1		2		1	4
NS/N						1	1

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	2	3		1	2	8	22
2	3	1		4	5	15	23
				2	1	3	5
2				1	2	5	16
	2	1	1	1	4	9	14
	1			1	1	3	6
							2
1			2		1	4	8
				1	2	3	4

Most of Gloria's (Calvin's) teachers are very proud of her (him).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	4		5	5	4	7	25
N/N		1	1		3	1	6
Y/N							
N/Y					1	2	4
NS/NS						2	2
Y/NS			1			1	2
N/NS							
NS/Y		2	1	3	2	2	10
NS/N						1	1

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
2	6	2	1	3	10	24	49
		1			2	3	9
				1		1	5
1		1		2	1	5	7
	1					1	3
1				3		4	4
1	1	1	2	2	4	11	21
					1	1	2

Older people like to have Bette (Sidney) around.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	1	5	5	6	6	25
N/N					1	1	2
Y/N							
N/Y						1	1
NS/NS	1					1	2
Y/NS							
N/NS							
NS/Y	1	2	3	4	3	7	20
NS/N							

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	3	5	2	1	4	14	29	54
								2
		1	1		2		4	5
			1		1	2	4	6
	2	2	1	2	4	2	13	33

Martha (Phil) is the leader when the boys and girls get together.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y			3	1		1	5
N/N	1				3	4	8
Y/N							
N/Y	3	2	3	5	6	6	25
NS/NS			1	1	1	1	4
Y/NS							
N/NS						1	1
NS/Y		1	1	2		2	6
NS/N						1	1

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	2	1		4	1	8	13
3	1			4	3	11	19
1	2	3	1	3	7	17	42
	3	1			1	5	9
1					5	6	7
			2		1	3	9
							1

Older people sometimes treat Janice (Ralph) as if she (he) were a younger girl (boy).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y							
N/N	4	1	8	6	7	8	34
Y/N		2		2	1	5	10
N/Y							
NS/NS					1		1
Y/NS					1		1
N/NS							
NS/Y							
NS/N				1		3	4

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	1					1	1
4	4	1	1	7	11	28	62
	2	3		4	2	11	21
					2	2	3
					1	1	2
		1				1	1
1	1		2		2	6	10

Sometimes the other girls (boys) can't figure out Mary (Ben).

	<u>BOYS</u>							<u>GIRLS</u>							
	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
Y/Y	1		2		3	3	9			1	1			2	11
N/N	2	1	4	3	2	4	16	4	4	2		8	9	27	43
Y/N		1	1	2	1	4	9	1	3	1			4	9	18
N/Y		1					1		1					1	2
NS/NS					1	1	2			1	1		2	4	6
Y/NS	1		1	1			3					2		2	5
N/NS															
NS/Y															
NS/N				3	3	4	10				1	1	3	5	15

Patty (Edwin) has a boy- (girl-) friend who thinks she (he) is pretty special.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	1	1	2	3	3	3	13
N/N				1	1	1	3
Y/N							
N/Y	2	2	4	3	4	9	24
NS/NS			2			1	3
Y/NS							
N/NS	1				1	1	3
NS/Y				2	1	1	4
NS/N							

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	2	4	1	1	4	3	15	28
	2					2	4	7
		3	4	1	6	5	19	43
					1	1	2	5
						1	1	1
		1				1	2	5
	1			1		5	7	11

Nothing stops Caroline (Hugo) from doing the best she (he) can do.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	1	6	2	5	3	20
N/N						1	1
Y/N							
N/Y		2		3	4	6	15
NS/NS				1			1
Y/NS							
N/NS							
NS/Y	1		2	3	1	6	13
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
2	7	3	1	7	11	31	51
					1	1	2
1	1	1	2	3	4	12	27
							1
		1				1	1
2				1	2	5	18

Connie (Walter) does what her (his) parents expect her (him) to do.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	2	4	6	5	8	28
N/N			1			1	2
Y/N							
N/Y		1	1		2	2	6
NS/NS			1				1
Y/NS							
N/NS							
NS/Y	1		1	3	3	5	13
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	4	3	1	9	11	32	60
				1		1	3
	1	2	1		1	5	11
					3	3	4
	3		1	1	2	7	20
1					1	2	2

Emma (Mark) feels at home with older people.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	2	5	6	9	8	33
N/N			2			2	4
Y/N							
N/Y	1	1	1	2		3	8
NS/NS						1	1
Y/NS							
N/NS					1	1	2
NS/Y				1		1	2
NS/N							

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	4	5	4	2	5	10	30	63
		1			1	1	3	7
			1		3	1	5	13
		1					1	2
						2	2	2
		1			1	1	3	5
	1			1	1	3	6	8

Dot (Lee) gets help, sympathy, and advice from the girls
(boys) in her (his) crowd.

	<u>BOYS</u>							<u>GIRLS</u>							
	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
Y/Y	2	2	3	5	8	6	26	5	4	3		9	11	32	58
N/N	1		2	2	1	4	10					2	2	4	14
Y/N															
N/Y	1	1	1	1	1	4	9		1	1			2	4	13
NS/NS			2				2		1					1	3
Y/NS									1					1	1
N/NS						1	1								1
NS/Y				1		1	2		1		3		1	5	7
NS/N										1			2	3	3

Julie (Tom) has a boy-friend (girl-friend) who seldom tells her (him) what to do.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	1	3	3	3	6	18
N/N			2	2	2	4	10
Y/N							
N/Y	2	2	2		4	4	14
NS/NS				3		2	5
Y/NS							
N/NS					1		1
NS/Y			1	1			2
NS/N							

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	4	3	1	1	5	6	20	38
	1	2	3		1	5	12	22
		1	1	1	4	2	9	23
					1	4	5	10
						1	1	1
		2		1			3	4
								2

Nancy's (Art's) teachers feel that she (he) is a fine person.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2		5	5	4	3	19
N/N					1		1
Y/N							
N/Y		1			3	1	5
NS/NS						1	1
Y/NS			1				1
N/NS							
NS/Y	2	2	2	4	2	11	23
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
2	6	2	1	5	7	22	41
							1
							5
			1	2	2	5	6
							1
3	2	3	1	5	9	23	46

Kitty (Herb) usually succeeds when she (he) works hard
for what she (he) wants.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	3	8	9	9	15	46
N/N							
Y/N							
N/Y	1				1	1	3
NS/NS							
Y/NS							
N/NS							
NS/Y	1						1
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	6	5	3	9	15	42	88
	1			1		2	5
1	1			1	3	6	7

Vivian (Carl) behaves like older people want her (him) to.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	1	5	4	8	10	30
N/N			2	1		1	4
Y/N							
N/Y				1	2	1	4
NS/NS	1			1		1	3
Y/NS							
N/NS							
NS/Y	1	2	1	2		3	9
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
3	6	2	1	7	8	27	57
				1	2	3	7
		1	1	2	1	5	9
1		1		1	2	5	8
	1				1	2	2
1	1	1	1		4	8	17

Harriet's boy-friend (Michael's girl) tells her (him) he
(she) is proud of her (him).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	1	1	1	2	1	8
N/N			1	1	1	2	5
Y/N							
N/Y	2	2	6	5	7	11	33
NS/NS							
Y/NS							
N/NS							
NS/Y				2		2	4
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
1	2		1	3	3	10	18
3		1	1	2	5	12	17
1	3	4	1	5	9	23	56
	1				1	2	2
	1					1	1
	1			1		2	6

Marcia's (Donald's) parents show her (him) in many ways that they love her (him).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	4	2	8	9	10	16	49
N/N							
Y/N							
N/Y							
NS/NS							
Y/NS		1					1
N/NS							
NS/Y							
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
5	7	5	3	11	17	48	97
	1					1	1
							1
					1	1	1

It bothers Virginia (Floyd) if she (he) doesn't do her
(his) best.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	4	3	7	6	6	13	39
N/N				2	1	1	4
Y/N							
N/Y					1		1
NS/NS					1		1
Y/NS							
N/NS							
NS/Y			1	1	1	2	5
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	7	4	1	8	12	37	76
		1				1	5
				1	3	4	4
			2			2	3
	1				2	3	4
				2		2	2
					1	1	6

The other boys and girls look up to and admire Phyllis (Jack).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	1		1	2	4		8
N/N						1	1
Y/N							
N/Y	2	1	3	3	2	8	19
NS/NS			1			1	2
Y/NS							
N/NS	1						1
NS/Y		2	3	4	4	6	19
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
1		1		3	2	7	15
				2	1	3	4
3	1		1	3	4	12	31
	1				3	4	6
					2	2	3
1	6	4	2	3	6	22	41

Girls and boys sometimes make fun of Barbara (George).

BOYSGIRLS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50		Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
Y/Y				3	2		5		1	1	2		1	1	6	11
N/N	1	1	4	1	7	6	20		2	5	1	1	9	8	26	46
Y/N	2	1	3	5	1	8	20		1	2	2		1	3	9	29
N/Y	1						1									1
NS/NS																
Y/NS									1					1	2	2
N/NS																
NS/Y																
NS/N		1	1			2	4					2		5	7	11

Elaine (Pete) and her (his) family enjoy doing many things together.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	4	2	6	7	9	13	41
N/N		1		1		1	3
Y/N							
N/Y			1		1	1	3
NS/NS							
Y/NS			1				1
N/NS							
NS/Y				1		1	2
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	6	4	3	8	14	39	80
				1		1	4
1	2	1		1	1	6	9
				1	1	2	2
							1
					2	2	4

Pauline (Nelson) gets her (his) way when she (he) really wants it.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2		2		3	1	8
N/N	1	2	5	3	1	5	17
Y/N							
N/Y	1		1	2	2	3	9
NS/NS				2	1	4	7
Y/NS				1	1		2
N/NS		1			1	1	3
NS/Y				1		2	3
NS/N					1		1

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
1	1	1	2	2	1	8	16
3	4	2		5	9	23	40
1				1	1	3	12
	2		1	2	3	8	15
							2
	1			1	3	5	8
		2			1	3	6
							1

Nell (Bert) goes to one of the best schools in this part of the state.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	4	2	8	8	7	5	34
N/N						2	2
Y/N							
N/Y					1	4	5
NS/NS					1		1
Y/NS							
N/NS		1		1			2
NS/Y					1	5	6
NS/N							

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	4	4	4	2	6	10	30	64
					1	1	2	4
		3			2	1	6	11
		1				2	3	4
				1			1	3
	1		1		2	4	8	14

Jean (Fred) sometimes breaks school rules because the other girls (boys) do.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y			1		2	2	5
N/N	1	2	5	6	4	11	29
Y/N	2	1	2	2	3	2	12
N/Y							
NS/NS							
Y/NS	1			1			2
N/NS							
NS/Y							
NS/N					1	1	2

GRIS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
							5
4	8	4	2	11	15	44	73
		1				1	13
					1	1	1
1					1	2	2
					1	1	3
			1			1	3

Lila's (Vic's) family let her (him) make up her (his) own mind about many things.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	4	3	6	9	9	14	45
N/N						1	1
Y/N							
N/Y			1			1	2
NS/NS			1		1		2
Y/NS							
N/NS							
NS/Y							
NS/N							

GERLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	4	4	2	7	16	37	82
1	1			1	1	4	5
	2			2		4	6
		1		1		2	4
					1	1	1
	1					1	1
			1			1	1

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BOYS

GIRLS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	1	6	7	6	6	29
N/N							
Y/N							
N/Y				1			1
NS/NS			1			2	3
Y/NS							
N/NS							
NS/Y	1	2	1	1	4	8	17
NS/N							

Nora's (Paul's) family approves of most things she (he) does.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	2	6	7	9	14	41
N/N							
Y/N							
N/Y		1	1	1			3
NS/NS						1	1
Y/NS			1				1
N/NS							
NS/Y	1			1	1	1	4
NS/N							

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	5	7	4	3	10	16	45	86
			1			1	2	5
						1	1	2
					1		1	2
		1					1	5

Roberta (Forrest) has a boy-friend (girl-friend) all her (his) own.

	<u>BOYS</u>							<u>GIRLS</u>							
	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
Y/Y	1	1	2	3	4	2	13	2	2	1	1	5	3	14	27
N/N			1	1	1	3	6	2		2		1	4	9	15
Y/N															
N/Y	2	2	3	3	4	7	21		2	2	2	3	8	17	38
NS/NS	1						1		1			1		2	3
Y/NS						1	1					1		1	2
N/NS					1	3	4		2				2	4	8
NS/Y			2	1			3	1	1				1	3	6
NS/N				1			1								1

Adults keep telling Shirley (David) how she (he) should act.

<u>BOYS</u>								<u>GIRLS</u>								T 100
	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50		Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	
Y/Y				1	1	2	4		1	2	1	1	4		9	13
N/N	2	2	6	5	5	7	27		3	1	4	2	4	11	25	52
Y/N	1		1	2	2	3	9		1	2			2	5	10	19
N/Y																
NS/NS	1					2	3							1	1	4
Y/NS		1	1		1		3							1	1	4
N/NS					1		1			2					2	3
NS/Y													1		1	1
NS/N				1		2	3			1					1	4

Greta (Earl) doesn't like to do things that are too easy for her (him).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	1	3	6	4	7	24
N/N			1		1	1	3
Y/N					3	1	4
N/Y		2	1	1		3	7
NS/NS			2	1		2	5
Y/NS	1						1
N/NS					1	2	3
NS/Y					1		1
NS/N			1	1			2

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	3	4	5	1	3	6	22	46
	1	1		1	5	3	11	14
								4
				1	2		3	10
	1	2			1	5	9	14
								1
						2	2	5
						1	1	2
	1					1	2	4

Marie's (Arthur's) teachers give her (him) praise now and then.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	4	1	8	6	8	14	41
N/N							
Y/N					1		1
N/Y		1		2	1	1	5
NS/NS							
Y/NS						1	1
N/NS							
NS/Y		1		1			2
NS/N							

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	4	6	5	2	11	14	42	83
						1	1	1
								1
	1						1	6
		1				1	2	3
		1		1		2	4	6

Rita (Craig) can date almost any of the boys she knows
whenever she tries (girls he knows whenever he tries).

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	1		1			1	3
N/N			3	1	2	2	8
Y/N							
N/Y	3	2	2	3	5	10	25
NS/NS						2	2
Y/NS							
N/NS					1		1
NS/Y			2	4	2	1	9
NS/N		1		1			2

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
		3			1	4	7
3	2	2		3	6	16	24
2	1		2	6	5	16	41
	1			1	1	3	5
	1					1	1
					3	3	4
	3		1	1	2	7	16
							2

Laura (Oliver) and her boy-friend (his girl-friend) usually do what Laura (Oliver) thinks is best.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	1	1	2	5	2	2	13
N/N	1	1	3	1	4	4	14
Y/N			1				1
N/Y	2			1	1	3	7
NS/NS			1		1	3	5
Y/NS					1		1
N/NS		1				2	3
NS/Y				2	1	2	5
NS/N			1				1

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
1				2	1	4	17
3	3	5	2	5	11	28	42
							1
	1			2		3	10
	2			1		3	8
	1			1		2	3
1		1			2	4	7
	1		1		2	4	8
					2	2	3

Eleanor (Sandy) and her boy-friend (girl-friend) go to the same places and do the same things the other couples do.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2	1	4	5	2	4	18
N/N			4	2	2	4	12
Y/N							
N/Y	1	2		1	5	4	13
NS/NS						2	2
Y/NS				1			1
N/NS	1					2	3
NS/Y					1		1
NS/N							

GRIS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
3	4	1	1	5	5	19	37
1		2		2	6	11	23
	2	1	1	2	3	9	22
			1		2	3	5
1					1	2	3
	2			1		3	6
		1		1	1	3	4

Cora (Lewis) has a boy-friend (girl-friend) who lets her (him) know that he (she) really likes her (him).

BOYSGIRLS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50		Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
Y/Y	1	1	2	3	3	1	11		2	4	1		6	3	16	27
N/N			1	2	1		4		3	1	1		1	4	10	14
Y/N																
N/Y	2	2	5	3	6	13	31			2	2	1	4	5	14	45
NS/NS						1	1			1					1	2
Y/NS														1	1	1
N/NS														3	3	3
NS/Y	1			1		1	3				1	1		2	4	7
NS/N												1			1	1

Item No. 87

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Millie's (Henry's) family think she (he) is just about okay
in every way.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	2		5	6	8	4	25
N/N				1		1	2
Y/N							
N/Y	1	1	1	2	2	4	11
NS/NS			1				1
Y/NS			1				1
N/NS	1						1
NS/Y		2				7	9
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
4	6	2	3	7	10	32	57
					1	1	3
		1		2	2	5	16
	1			2		3	4
							1
							1
1	1	2			5	9	18

Mary Ann (Mike) goes to her (his) best friend when she (he) has something to get off her (his) mind.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	3	2	5	4	5	3	22
N/N		1	1	1		5	8
Y/N							
N/Y	1		2	1	2	5	11
NS/NS				1	1	1	3
Y/NS					1	1	2
N/NS					1		1
NS/Y				2			2
NS/N						1	1

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	5	5	4	2	8	8	32	54
		1				5	6	14
						2	2	13
					2		2	5
					1		1	3
		2	1			1	4	5
				1		2	3	5
								1

Dora (Robert) almost always asks her girl-friend (his boy-friend) what she (he) should do about some things.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	1	3		1	5	2	12
N/N	1		5	3		8	17
Y/N							
N/Y	1			1	3	1	6
NS/NS			2	1	1	3	7
Y/NS				1			1
N/NS	1		1	2	1	1	6
NS/Y							
NS/N						1	1

GIRLS

	Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
	3	4	3	3	7	8	28	40
	2	1	1		3	5	13	30
								6
		1	1			3	5	12
						1	1	2
		2				1	3	9
								1

Grace (Andy) has a girl-friend (boy-friend) who thinks Grace (Andy) is tops in just about everything.

BOYS

	Un 4	Ev 3	Up 8	Bx 9	Wr 10	Cr 16	TB 50
Y/Y	1	1	2	2		1	7
N/N	1		2			2	5
Y/N							
N/Y	2	2	2	4	5	5	20
NS/NS			1	1		2	4
Y/NS							
N/NS						1	1
NS/Y			1	2	5	5	13
NS/N							

GIRLS

Un 5	Ev 8	Up 5	Bx 3	Wr 11	Cr 18	TG 50	T 100
1	3	3		6	4	17	24
1				2		3	8
1	2	1			2	6	26
	1				3	4	8
	1					1	1
							1
2	1	1	3	2	9	18	31
				1		1	1

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I, Rodger C. Bishton, was born in Chidago, Illinois, October 23, 1913. I received my public school education in the schools of that city. My undergraduate training was obtained at The Principia College, Elsah, Illinois from which I received the degree Bachelor of Arts in 1937. After three years teaching experience, I served four years in the United States Naval Reserve. From The Ohio State University, I received the degree Master of Arts in 1947, with a major in psychology. While in residence at The Ohio State University, I have acted in the capacity of assistant and instructor in the College of Education.