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Characteristics of the Freshman Class of September, 1939 at Gage Park High School

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CHARACTERISTICS OF THE FRESHMAN CLASS
OF SEPTEMBER, 1939 AT
GAGE PARK HIGH SCHOOL

A Thesis
Presented to
the Faculty of the Graduate School
Loyola University

In Partial Fulfillment
of the Requirements for the Degree
Master of Education

by
Mae K. Callahan
November 1940

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CHAPTER I

THE PURPOSE AND LIMITATION OF SUBJECT

Implication of adjustment. An ideal program of education would provide an uninterrupted and continuously adjusted education for every pupil from the beginning to the end of his formal period of training. The United States has nursery schools, kindergartens, private elementary schools, public and private, vocational or technical schools, colleges and universities, to mention the more important. There is no uninterrupted system of education. Transfer from one type to another is essential and seems justifiable. However, such transfers create many administrative problems, cause interruptions in pupil progress, and sometimes results in serious problems of pupil adjustment and inarticulation.

Outcomes for the learner are materially affected by the number, kind and degree of inarticulations which modify his experience.

An inarticulation is any point within our public school system and the society which it serves at which the continuous and gradual growth, development, progress, or transition of an individual is hindered by reason of the organization, methods, materials, or practices of our schools.¹

¹ Five Unifying Factors in American Education, Ninth Yearbook of the Department of Superintendents of the National Educational Association (Washington, D. C.: 1931) p. 388.

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Transfer from one school to another and even from one division of the same institution to another is likely to be associated with conditions that will require a certain degree of adjustment. There are important differences between the elementary and the high school and a pupil in transferring from one to the other must make important and difficult adjustments. Pupils transfer from a large number of elementary schools representing districts composed of populations differing socially and economically.

Definition of parochial and public schools. Pupils enroll from different elementary school systems in the same area such as public and parochial. By public schools is meant state supported schools and by parochial schools those conducted and supported by a religious sect. In the study of sects are Lutherans and Catholics. Emphasis on subject matter would change according to the principles and objectives of each system. It might be well to examine the stated objectives of the differing systems.

Characteristics of the objectives. Psychologists believe that the philosophy of life, the theory of society and the definition of purposes greatly influence the schools in any community. The commission appointed by the National Educational Association in 1918 set up general goals and educators have been improving them since. Changing objectives of education are

adapted to modern philosophy of education.

At the present time the trend is toward stressing the social aspect of education. In the social process, education assists the individual with his integration into the complexities of society. The individual needs direction in the present involved state of civilization. For effective education must be viewed in the light of the parent and the guardian of civilization.²

Dean Melby³ says that there is a renewed emphasis on democratic social living coming as response to the growing recognition of the dangers to democracy both at home and abroad. The growth of totalitarianism has forced believers in democracy to analyze their thinking. Similarly, it has moved societies which have a democratic orientation to study their social programs in a critical manner. Education must similarly be subjected to the most searching appraisal in terms of democratic values since no institution is more vital to the democratic way of life than the school.

Principles for learning concepts. The present time seems to demand an examination of principles for forming new

² J. C. Chapman and G. S. Counts, Principles of Education (Boston: Houghton Mifflin Company, 1924), pp. 11-12

³ Ernest O. Melby, "A Summary and Implications of Newer Practices in Education," Newer Practices of Promise, Twelfth Yearbook Department of Supervisors and Directors, (1939), p. 21.

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functional learning concepts. Dr. Beard⁴ defined the five guiding principles of American education.

1. Public education is anchored in the history of American civilization and at any given moment operates within the accumulated heritage of that civilization.
2. Every system of thought and practice in education is formulated with some reference to the ideas and interests dominant or widely cherished in society at the time of its formulation.
3. Once created and systematized, any program of educational thought and practice takes on professional and institutional stereotypes, and tends to outlast even profound changes in the society in which it assumed its original shape.
4. Any restatement of educational objectives and responsibilities which is rooted in reality takes into account the nature of professional obligations and makes adjustments to cope with the major changes wrought in society since the last general reckoning in education.
5. Any statement of educational objectives and responsibilities that is not merely theoretical involves a quest for the institutional forms and operating practices through which education can best attain its ends.

In analyzing the characteristics of any educational field the area, objectives, curriculum and instructional practices should be viewed in the light of the extent to which they promote the principles and spirit of the American democracy. The philosophy of democracy enters into the definition of education since public education is charged with disseminating the knowledge and keeping alive the spirit necessary for the functioning of democracy. To this end the Educational Policies

⁴ Charles Beard, "The Unique Function of Education in an American Democracy," Educational Policies Commission of the National Educational Association, (1937), p. 5.

Commission has stated for American educators the four purposes of education and these clearly defined purposes are now being quoted by many public school leaders.

Purposes of Education. The four purposes of education in an American democracy are:⁵

1. EDUCATION FOR SELF-REALIZATION. This includes the fundamental tools for learning, health, recreation, and personal philosophy. Success in this role conditions one's success in every other phase of life's activities.
2. EDUCATION FOR HUMAN RELATIONSHIP. This implies a knowledge of how to live with friends, neighbors, and members of one's own family group. The impact of education on a developing personality should lead that person to place human welfare at the very summit of his scale of values.
3. EDUCATION FOR ECONOMIC EFFICIENCY. This is considered necessary since in a democracy each person contributes according to his ability to the essential welfare of all. This means that under ideal conditions each adult follows an occupation for which he is fitted by ability, personality, and training.
4. EDUCATION FOR CIVIC RESPONSIBILITY. Here is found awareness that the young citizen of America must discover knowledge concerning his own interests, national resources, forms of government, and the disparities of human circumstances as well as the means of obtaining the knowledge which will enable him to discharge his civic duties intelligently.

If these, then, are the general principles to which many public administrators in the United States subscribe, it would seem well to examine statements on the philosophy of education of the leaders of Catholic groups to see if there are any conflicts.

⁵ "Purposes of Education," National Educational Association Journal, (January, 1938).

Catholic objectives. In April, 1939, the Policies Commission of Seven from the National Catholic Educational Association presented this statement:⁶

The objectives of the Catholic Secondary Schools in the United States are so to guide, nourish and stimulate the adolescent mind and heart as to:

1. Develop intelligent Catholics.
2. Develop spiritually rigorous Catholics.
3. Develop cultured Catholics.
4. Develop healthy Catholics.
5. Develop vocationally prepared Catholics.
6. Develop socially minded Catholics.
7. Develop American Catholics.

From the foregoing statements it is apparent that the Catholic schools of the United States subscribe heartily to the same general philosophy of education as expressed by the Policies Commission of the National Educational Association in the four purposes of education. Catholics believe in education for self-realization and human relationship but they interpret the ethical phase from a moral and religious point of view.

Catholic philosophy. Reverend George Johnson summarizes the Catholic school philosophy.⁷ The parish is an excellent unit for local school administration. Neighborliness is characteristic of the activities of the parish. For initiating children

⁶ "A Tentative Statement of the Objectives of Catholic Secondary Education in the United States," Catholic School Journal, Vol. 40 (May, 1940), pp. 148-149.

⁷ Reverend George Johnson, "Catholic School Education," Atlantic Monthly (April, 1940), p. 500.

into the art of living happily together and making them aware of their duties and responsibilities to others, for giving them immediate and first hand satisfactions that are born of loving one's neighbor as oneself the parish school has unrivaled potentialities. He insists that Catholic schools shall be no whit inferior to public schools in order to safeguard the function of education for "undifferentiated-competence" -- Dr. Judd's phrase for citizenship in a democracy. Because they love their country, its institutions and its ideals and because they are resolved to safeguard it to the utmost of their ability, the Catholic citizens of the United States maintain schools where children and youth are taught that they must love God above all things with their heart and soul and mind and strength, and that the proof of their love of God is their love of their fellow man.

Lutheran philosophy. Koehler of the Concordia Lutheran College states the principles of Lutheran education.

Moral and religious training is of greatest consequence to the youth of this land. It must be the groundwork and backbone of all education. It alone will insure stability and permanency to Lutheran culture and civilization.⁸

The safety, the peace, and the prosperity of a country do not depend upon its natural resources, not upon the wealth of its citizens, nor upon their learning and intellectual culture, but upon their good moral character. Any institution which helps to train the rising generation to become

⁸ Edward W. A. Koehler, A Christian Pedagogy (St. Louis: Concordia Publishing House, 1930), p. 260.

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industrious, honest, loyal, and law-abiding citizens renders a greater service to society and country than large armies and powerful navies.

The Christian home and the Christian school are therefore the bulwarks of peace and prosperity and the moral backbone of the country. Any reform which is to improve the public morals cannot be a matter of legislation, but must be a matter of education. It must begin in the home, be continued in the school, and be supported by the Church. It consists in bringing up children in the nurture and admonition of the Lord.⁹

Objectives of Chicago elementary systems. In the city of Chicago statements from the Superintendents of two of the school systems demonstrate that they are in mutual accord with the basic statements of the Policies Commissions, and further clarify the objectives of Chicago's Elementary School Systems by stating them specifically.

Reverend D. F. Cunningham, Superintendent of the Catholic Schools of Chicago, says:¹⁰

Catholic schools are private schools, but they are also public schools, and as such they recognize their responsibility of producing good citizens for the state. We have no intention of separating our pupils either from the body of the nation or from its spirit. Our purpose is to educate them in a manner most conducive to the prosperity of the nation. Indeed, we feel that a well educated Catholic, precisely because of his Catholic principles, makes a good citizen, attached to his country and loyally submissive to lawfully constituted civil authority. To make for better citizenship, greater stress will be placed this year on a study of the Constitution of the United States, to the end that our pupils may have a deeper knowledge of the ideals on

⁹ Ibid., pp. 123-134.

¹⁰ From a radio talk by Reverend D. F. Cunningham, September 14, 1938, on NBC.

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which their country was founded.

Dr. William H. Johnson, Superintendent of the Public Schools of Chicago, says:¹¹

Basic, in our national ideology is the goal of equality of opportunity for all men, a government built and improved by the verdict of the common will, and freedom of speech, of assembly and of the press. We can offer equality of opportunity to our children only if we organize and administer our schools with a program, methods, and materials that will serve the needs of each child, and only if we carry on child accounting, so that continuous education and personal listening of the pupil is available to the school which seeks to assist him. We can build an educated, effective, and appreciative citizenry by setting up the school for democratic action by teacher and pupil participation in school affairs and in classroom work, and by carefully planned program of social studies, in other cultural fields and in the arts.

Subsequent to the study of the basic philosophies of the two groups entering Gage Park High School comes the examination of the success with which these groups have adjusted themselves to the high school program of studies at Gage Park High School.

Solution of problem of adjustment. The solution of the problem of adjustment falls primarily upon the secondary schools. The administrative officers must recognize the problem. The entire organization, the administrative staff, the teaching personnel, and the adjustment service must cooperate to effectively adjust the curriculum to the needs and aptitudes of its pupils.

Limitations of the study. A well-planned curriculum,

¹¹ William H. Johnson, Annual Report of the Superintendent of Schools (Chicago: Board of Education, 1939-1940) pp. 23-24.

then, depends upon a comprehensive program which the entire faculty accepts and works vigorously to promote. Such a program will begin with a thorough study of the entering pupils. A cumulative record of the pupil should be started if such a record is not available from the contributing school. This record should give such information as the pupil's date of birth, state of health, physical defect, intelligence quotient, mental test results, ability as estimated by his several teachers, academic record, achievement as measured by standard tests, attitude toward work, character traits, social development, home conditions, expectancy of remaining in school, educational plans, and ambitions.

The study does not attempt to evaluate the results achieved by the public and parochial school systems. It recognizes that the aims and objectives of these systems are in many respects very different, that they differ markedly in methods and materials of instruction, and even on emphasis of attainment of objectives which are common to them.

Required subjects in curriculum. In the curriculum of the Chicago Public Schools, the three required subjects for the first year high school program of studies are English, Science, and Physical Education. The objectives in these subjects are planned for the purposes of student integration.

English I course of study. Under English there are

three phases - communication, grammar usage, and literature.

Communication is divided into oral and written composition springing from the experience and interest of the student. Through student interest dynamic expression can be secured carrying with it an intelligent understanding of the 'rules of writing with the theme "Impel to produce, not compel to reproduce".¹²

What grammar is necessary to the improvement of pupil language is considered the measuring stick for determining how much functional grammar the 1B and 1A student should be taught for solving the pupils' problems of usage and effectiveness in communication.

Under literature there are two types, work-reading and recreatory-reading. Under work-reading we find silent reading of material adapted as well as possible to the reading ability of the class. Oral reading is to be chiefly employed in the prepared reading of poetry or passages noted for dramatic or artistic ability. With an extensive rather than an intensive study, the ultimate objective in the teaching of literature is to make the pupil live vividly and thoughtfully the vicarious experiences of our best characters in literature. For recreatory-reading modern, as well as the classic literature, is presented to first year high school students.

General Science course of study. In general science the objective is to bring pupil contacts with broad principles of science easily observed in his own environment. For example, the topics of some of the units are: (1) How does man use and

¹² "Communication--Oral and Written, Grammar and Usage," A Course of Study in English, (Chicago: Board of Education, 1940),

control light? (2) How do we use simple machines? (3) How do plants manufacture food? (4) What is the earth's place in the universe? (5) How does knowledge of the body assist in maintaining bodily health? These and many more units are presented in a series of big problems to be solved by demonstration by the teacher or by small groups of pupils under the teacher's direction. These experiments are the heart of the course whose objective is to develop by the experimental method a scientific attitude.

Physical Education course of study. Physical education is another core subject because it has an important contribution to make to the realization of modern education objectives. Physical activities become a way to make life with others more meaningful, interesting, and enjoyable. The objectives are (1) health through skills essential to bodily control and personal development (2) social adjustment through cooperative activities in large groups (3) sportsmanship.

The course of study in physical education aims to create proper health consciousness of the individual as to his own physical welfare, to build a health attitude toward society, and to promote a stimulating influence on the health of the coming generation.

Limitations of measures of achievement. This study does not assume that measures of achievement in English, General

Science, and Physical Education are the best measures of adjustment, but it does recognize that there is a correlation between teacher's grades and such measures. Achievement grades in these core subjects were selected because such grades are available for all pupils. Grades are teachers' objective estimates of pupils' achievement in these subjects and their ability to adjust themselves successfully to the required core subjects. Likewise, the teachers' ratings in courtesy, dependability, leadership, and service are the teachers' estimates of pupil performances in these respects. The above traits have been selected for study because they are the ones the Chicago Public School system regards as the most appropriate from the standpoint of validity and reliability.

Data used. This study should throw light on the solution of the problem of articulation between Gage Park High School and its contributing elementary schools and give some evidence on the extent to which individuals from these two elementary systems adjust themselves in the subjects and traits named. Grades and ratings at the end of the first and second semesters respectively are studied to throw light on the possibility of any group eventually becoming better adjusted.

It is the responsibility of the administration of a modern high school to know the capacities, interests, and needs of the pupils it admits. The more important data needed about each

pupil enrolled are the following:

- (1) Chronological age
- (2) Mental age
- (3) Achievement in previous studies
- (4) Reading ability
- (5) Special abilities
- (6) Characteristic interests
- (7) Work attitudes, and study habits
- (8) Emotional development
- (9) Social attitudes and habits
- (10) Nationality and language difficulties
- (11) Economic status of the home

The purpose. A careful consideration of these factors should form a satisfactory basis for determining a suitable program designed to appropriately meet the needs of these pupils and to prevent them from becoming maladjusted. A knowledge of these factors should materially assist in the solution of problems of adjustment arising when pupils are promoted from the elementary to the secondary schools. The secondary school administrators need these data about each individual entering the school if they are to intelligently care for the needs of the student. They require also similar data about the characteristics of groups of pupils enrolling from different elementary school systems if they are to intelligently plan an educational curriculum designed to reduce the problem

of articulation. Where problems of adjustment are acute there will be a large number of individual cases of maladjustment.

It is the purpose of this study:

1. To study certain characteristics of groups entering the Gage Park High School from the public and parochial school systems. Data available in the office files will be studied.

Among these data are: chronological ages, mental ages, intelligence quotients, and reading abilities.

2. To relate these to the first and second semester achievement of these groups in English, General Science, and Physical Education.

3. To determine the relative position of each group for the first and second semesters in ratings in courtesy, dependability, leadership, and service. No claim is made that what is used is best, but these ratings are available from ten different teachers' viewpoints. The study does not assume that the characteristics under investigation in this study are the only ones worth studying, or even that they are the most important factors contributing to the problems of inarticulation and of maladjustment of individuals. They are rather the only data at present available for making a comparative study of the various groups.

CHAPTER II

RELATED LITERATURE

Phases of study. The problem under research is so restricted to the area of a newly organized high school that it is difficult to locate literature covering so small a sub-group. As a result the related literature offered here has bearing on some one phase of the study presented. In his preface, Lindquist¹, seems to indicate a need of small group studies when he reports that it has been a mistaken notion among research workers that it is seldom necessary to use small samples in educational research, and that the small sample theory is of little interest or value to research students of education. In taking this attitude, the significant fact has been overlooked, that most of our samples, however large in terms of numbers of individual observations, are not simple random samples but consist of relatively homogeneous and intact sub-groups such as pupils in a single school or under a single teacher.

Findings in English. Koos² made a statewide study of every phase of secondary education of public and private high

¹ E. F. Lindquist, Statistical Analysis in Educational Research (New York: Houghton Mifflin Company, 1940), preface.

² Leonard Koos, Private and Public Secondary Education (Chicago: University of Chicago Press, 1931), pp. 74-77.

schools in the state of Minnesota, a study dealing with such large numbers of high schools that it is not comparable with this small group sample of educational research. However, his findings on the subject of English can be definitely related to a phase of the subject of this thesis.

Using Tressler's Minimum Essentials Test, Form Three, in English he found that the median scores and the ranges of the fifty per cent of the scores for five different groups of secondary schools - three private and two public - represented in the table reproduced here:

GRADE IX

Private	Q ₁	M	Q ₂
Roman Catholic	31.9	41.2	51.2
Scandinavian	28.9	38.5	49.0
Independent	41.4	51.7	54.3
Public			
Small	30.9	43.3	50.3
Large	33.6	42.8	52.8

These measures for grade nine show the performance to be somewhat lower for the Scandinavians than in the Catholic schools. The higher measures for the independent group were to be expected from the difference in the intelligence quotients. The measure for the public high schools are at least on a par with those of the Catholic schools.

In the Ability In Reading Tests, the Haggerty Reading Examination was given to all students in grades nine and twelve

after an intelligence test had been administered. In the ninth grade, the Scandinavian schools fell considerably below the Catholic ones. The measure for the same grade in small public high schools are not quite on a parallel with those of the Catholic schools. Those in the larger public high schools are notably higher. By the end of grade twelve the Scandinavians had almost caught up with the Catholic schools. The small public schools have attained a superiority while the independent schools with high intelligence scores are still in the lead.

Adjustments caused by transfer from elementary to high school. Inglis³ points out that there are important differences between the elementary and the high school and a pupil in transferring from one to the other must make important and difficult adjustments. He points out some of these adjustments which deserve attention.

(1) The transition from the elementary school to the high school ordinarily involves the breaking up of established social groups among pupils who have been associated for some years and the establishing of new social groups.

(2) The transition from the elementary to the high school means a transfer from one institution to another quite different, to one in which almost every phase of the organization and administration is radically different to those obtaining in the institution to which he has been accustomed.

(3) The pupil on passing from the elementary school to the

³ Alexander Inglis, Principles of Secondary Education (Boston: Houghton Mifflin Company, 1918), pp. 278-282.

high school ordinarily passes from a situation in which practically all his study in any one grade (or even several grades) has been under the direction and guidance of a single teacher who has learned to know him in all his activities--to know the whole child--to a situation in which activities are divided in such a way as to involve a number of different individuals as teachers and guides, no one of whom knows the pupil as a whole and can coordinate his various activities connected with the school work.

(4) Transfer from the elementary school to the secondary school commonly means a noticeable change in the character of studies. Those of the last grades of the elementary school are almost exclusively subjects which have been studied for many years and are familiar to the pupil in their general associations because there are but different phases of such subjects as arithmetic, language, geography, and the like. On entrance to the high school the pupil is confronted by a group of studies nearly all of which are unfamiliar in character or attack from a viewpoint and by methods which are unfamiliar. Obviously new subjects of study must be encountered by the pupil in his progress through the school. The difficulty lies not in the necessary introduction of new studies but in the fact that they are encountered en bloc in the first grade of high school.

(5) Teachers in the elementary school regularly have received their training in the normal school. Teachers in the high school regularly have received their training--such as it is--in the college. The former have received a professional training which has emphasized method and the pupil. The latter have received no professional training in most cases and in their higher education have tended to become specialists in subject matter.

(6) As a result of the factors mentioned in the two preceding paragraphs important differences are found in the methods of teaching employed in the elementary and secondary school.

(7) Closely related to this factor is the fact that methods of discipline and methods of treating pupils differ quite widely in the elementary school and the secondary school.

(8) Finally, we may note that the whole atmosphere in the high school differs from that of the elementary school. The thousand and one forms of adjustment demanded of boy or girl entering the high school for the first time postulate a capacity for adaptation not always found.

Although Inglis made his analysis many years ago, it is still quite appropriate for schools of the present day.

Causes for freshman maladjustments. Feingold⁴ in his study finds overcrowding as a cause for maladjustment in high school freshmen. The answers which he received from 101 high school teachers of Hartford, Connecticut, gave the following order of frequency for weaknesses of high school freshmen:

1. Lack of knowledge of fundamentals (grammar, spelling, vocabulary, arithmetic)
2. Inability to comprehend the printed page
3. Poor study habits
4. Lack of concentration
5. Self-complacency
6. Teacher dependence
7. Inability to follow instructions
8. Inability to speak distinctly

He suggested that:

1. Greater emphasis must be given to English and arithmetic
2. More homework is needed in seventh and eighth grades
3. Less emphasis on silent than on oral reading
4. Instruction of seventh and eighth grades be patterned along line of ninth grade requirements so that the gap between should be less bewildering

Adjustment in the language area. Regarding the phase of adjustment in the language area Witty⁵ finds:

The forces which impede and block growth are numerous and

⁴ A. C. Feingold, "Outstanding Weakness of High School Freshmen," School and Society, Vol. 39, (May 19, 1934), pp. 631-637.

⁵ Paul Witty, "Creative Expression through Writing," The English Journal, Volume XXIX, (March, 1940), pp. 186-87.

varied. Educators are now aware that some of our established educational practices actually create and maintain situations which endanger wholesome growth. They have found, moreover, that the typical curriculum contains few opportunities for the school child to develop and enrich many worthy acquisitions. Common sense and mental hygiene would demand a school program which insures the uninterrupted progression of wholesome activities and experiences. The typical school often abrogates this responsibility, setting up when the child enters school new and unrelated goals and responsibilities. In certain areas of development this change is quite sharp and the undesirable effects are far-reaching.

Unnatural demands are particularly numerous and seemingly needless in the area of language. Youth frequently find that they must adopt an unfamiliar method of acquiring a vocabulary which is foreign to his previous repertoire of words. In the final stages of the child's "education" his basic language needs are neglected almost in toto, and "major" and "minor" subjects replace situations which enrich language.

Validity of intelligence quotient. In the Thirty-ninth Yearbook, Nature-Nurture⁶, the topic under discussion presents the controversial question related to the constancy of the intelligence quotient with two schools of thought - the Hereditarians who believe in the nature side, that we are born endowed in certain ways - and the Environmentalists who say that with nurture intelligence quotient is flexible varying as to environment. Terman, Thorndyke, Goodenough and Patterson belong to the group who feel that the intelligence quotient is stationary. Freeman, Stoddard and Wellman believe that by beginning early enough and continuing over a long period in an enriched

⁶ "Intelligence: It's Nature-Nurture," Thirty-ninth Yearbook by the National Society for the Study of Education, Vol. 2 (Bloomington, Illinois: Public School Publishing Company, 1940),

environment it is possible to radically raise the intelligence quotient.

Under Terman in California, Barbara Burks carried on a study. Having previously taken the Stanford-Binet Test, the children were then placed in certain homes for adoption. Later retesting to find out whether the new score would be similar to that of the adopted parents, the study showed that in general the intelligence quotient did not change, thus supporting the Hereditarian point of view.

Freeman used about the same method but found there was considerable improvement. Finding youngsters much better, his study supported the theory of the Environmentalist. Studies at a particular school show a bias to lean in one direction. From a study made at the University of Minnesota support was given there to the Hereditarian viewpoint.

At Iowa numerous studies show that if a child receives all his education at their school, the intelligence quotient is not constant. Normals may become near-geniuses, and normals in unfavorable environment will go down. The intelligence quotient is flexible, varying as to environment. There is a technical criticism of the Iowa studies; measuring instruments on early levels are not very reliable.

Miss Lampson in New York followed the Iowa method using nursery school children at three, four, and other growth periods. She compared initial and final intelligence quotients with

opposite results to Iowa tests. Over a four year range, she found a change of only 1.5 intelligence quotient points. All her conclusions are within the range of probable error of measurement. She concluded that intelligence does not show increase in intelligence quotient because of change of environment. Other studies at other places find about the same thing.

Gordon of England finds canal boat children go down in intelligence. Russian tests show they improve--but their tests are criticized, for they gave American tests to Russian children. The background of the children is different; American tests translated into Russian can not be reliably used.

In 1937, Beth Wellman at the University of Iowa, revived the Nature-Nurture question. All the people contributing studies are educational leaders above reproach and yet all claim proof of their theories. Environmentalists prove by statistics that intelligence quotients can be raised by an enriched environment, while the Hereditarians have much to sustain their theory of nature endowing us with all our traits at birth that they term the statistics offered by the Environmentalists as inaccurate and unreliable.

Variable factors in heredity. Regarding heredity, Hartshorne and May⁷ say, homes may differ widely in other respects

⁷ H. Hartshorne and M. A. May, Studies in Deceit (New York: The Macmillan Company, 1930), pp. 212-242.

than socio-economic or cultural levels. There may be a wide variation among homes of the same socio-economic level in respect to attitude toward children, general stability and adjustment, or even codes and ideals. Nurture plays a role in the development of all measurable traits and is not "eliminated" in any true sense from any group of factors. Some elements in behavior, however, are usually regarded as less modifiable than others and more directly the result of biological growth than of interaction with the environment.

It is commonly supposed that the correlation between the intelligence quotient of siblings in a homogeneous age, population of unrestricted range is around .50. Mr. Hildreth summarizes work done up to 1925 showing that the actual results on over 2000 pairs run from .30 to .63. These yield an average of .48. Gordon's data on 219 pairs of orphans when recalculated by Elderton by entering each pair twice in the scattergram, give a correlation of .467. The men are environmentalists.

Crucial issues in education. Studebaker⁸ writes in Crucial Issues in American Education that in these times when there is so much emphasis on vocational preparedness and economic well-being we must not lose sight of cultural competence. "Man does not live by bread alone." Preparation must be made to

⁸ John W. Studebaker, "Crucial Issues in American Education," Personal Growth Leaflet, Number 172 (United States Commission of Education), p. 3-8.

lift the cultural level of the future adult who may have to contend with a chaotic environment in regard to human relations.

In a study of pupil and subject failures, Don Rogers⁹ noted in the Chicago public schools the variability in practice regarding failures. In January, 1925, the elementary school had an average of 10.3 per cent pupil failure with subject failure 12.4 per cent.

Subject failures in Chicago High Schools. In subject failures there was a tremendous jump between VIII-A and IX-B. It was pertinent to ascertain (1) why there should be $4 \frac{2}{3}$ times more failures in 9B than in 8A; (2) why the high school area should be fifty per cent higher than the elementary.

The implications from this study indicated that the teaching method should be examined more critically, especially in high school, to find out whether new criteria for failure was needed, revision of the administrative machinery, supervisory methods, criteria or curriculum. This latter is now in the process of reorganization.

Koos¹⁰ comments that the rating of traits by teachers is much more widely used and promises more in practical value.

⁹ Don Rogers, Journal of Educational Research, XIV, (November, 1926), pp. 186-87.

¹⁰ Leonard Koos and Grayson Kefauver, Guidance in Secondary Schools, (Chicago: The Macmillan Company, 1933), p. 362.

These ratings have a high relationship with success, and, when combined with measures of ability considered alone. Also, by the use of these devices teachers and students are stimulated to give consideration to these important outcomes of education.

The procedures listed should be followed in the endeavor to obtain as valid ratings as possible. Certain additional recommendations may be ventured. Ratings should be made by all teachers for each student working under their supervision. To obtain a more reliable measure it is probably desirable to average the ratings. Ratings by the different teachers should be kept even though the composite rating is calculated. The variation in the ratings made by the different teachers may indicate variation in behavior of the individual in different situations. Evidence on the behavior in different classes will be without value in interpreting the student's success or failure.

Radio trends of interest. In a study made on the West coast, Tyler¹¹ presented a questionnaire to seven hundred pupils in high 7th, high 9th, and high 11th grades of two junior high and two senior high schools in Oakland, California. These schools were chosen because they represented a rough cross section of the city. He tried to include in his sampling

¹¹ Keith Tyler, "Radio Studies in Oakland," Education on the Air, Vol. 5, (Columbus, Ohio: Ohio State University Press).

students representing average, high, and low intelligence levels.

Summarizing his findings he reported that dramatics, sports and comedy were the favorite types of radio programs for the group: (1) sports programs and news broadcasts rated higher with boys than with girls; while dance music and "crooners" were liked better by girls than by boys; (2) dance music rose steadily in favor from the high 7th through the high 11th grade; (3) short plays fell in favor from the high 7th through the high 11th grade; (4) short plays fell in favor from first place in the high 7th through the high 11th grade; (5) there was a decided difference in the popularity of specific programs from grade to grade and between boys and girls.

Correlation of teachers' marks. Symonds and Jackson¹² in an adjustment survey of 162 ninth grade pupils, report a positive correlation of .237 between desirable behavior and teachers' marks. However, when they compared the difference between correlations of achievement with conduct and of school marks with conduct they found a real tendency for teachers to be influenced in marking by undesirable conduct. They found the average correlation between undesirable conduct and marks (-.245) to be (-.119) lower than the average correlation between undesirable conduct and achievement (-.126). They are of the

¹² Percival M. Symonds and Claude E. Jackson, Measurement of the Personality Adjustment of High School Pupils (New York: The Macmillan Company, 1935), pp. 89-92.

opinion that there is no similar tendency on the part of teachers to be influenced by desirable conduct beyond the real relationship of conduct and achievement which the pupil wins. The higher relationship they found between marks and conduct, as compared with achievement and conduct, might possibly be accounted for by the greater unreliability of teacher marks. The study does not indicate whether the relationships are due to the influence of desirable or undesirable conduct on achievement, or to the influence of high or low achievement on conduct.

Traits affecting success. Turney¹³ found that ratings by teachers on such factors as self-confidence, industry, originality, perseverance, dependability, and ambition correlated more highly than either mental age or intelligence quotient with school marks. His purpose to determine the active factors in the learning situation which could account for the discrepancies between achievement measured by teachers' marks, and the achievement scores on tests of mental ability. Checking results of an experimental group against the study of entire classes, he found that the two groups showed reliable differences in traits which operate to affect achievement, notably, industry, perseverance, dependability, and ambition. These traits, showing themselves to be factors in achievement, are not de-

¹³ Austin H. Turney, Factors Other than Intelligence that Affect Success in High School (St. Paul: University of Minnesota, 1930), pp. 83-85; 120-121.

pendent upon intelligence for their manifestation, given the minimum intelligence requisite for survival in his school. Although Turney points out that the teachers were in all probability considerably above average, this higher correlation may have been influenced by the "halo effect".

Flemming¹⁴, in her study of factors contributing to achievement of girls in the Horace Mann School of Teachers College, found that next to intelligence a composite of qualities summed up under the general head of school attitude was related to achievement.

Connor¹⁵ in an interesting study finds that there is a fairly constant tendency on the part of teachers to mark pupils in the subjects they study in agreement with the frequency and seriousness of general misbehavior of the pupils as it is judged by the teachers.

In a study of one hundred thirty-two problem cases in the University of Chicago High School, Reavis¹⁶ found that personality difficulties are second in frequency among the causes of poor educational achievement.

¹⁴ C. W. Flemming, A Detailed Analysis of Achievement in High School (New York: Columbia University Press, 1925),

¹⁵ W. L. Connor, "The Relation Between Teachers' Marks and Pupils' Behavior," The Nation's Schools, (November, 1929), pp. 55-60.

¹⁶ W. C. Reavis, Pupil Adjustment (Chicago: Heath and Company, 1926),

In the above studies Symonds and Jackson, Flemming, Turney, Connor, and Reavis report a positive relation between teachers' marks and desirable behavior or a negative correlation between marks and undesirable behavior.

CHAPTER III

SURVEY OF COMMUNITY CHARACTERISTICS

Type of Community. Chicago has communities representing a wide range of races and nationalities and social levels. "If the schools are to fulfill their role of serving all the people and helping all the children to become intelligent and loyal citizens of a democracy, there must be an understanding of the socio-economic status of the community as well as the races and nationalities of which it is composed. The school must assist its entering high school students in making a healthy adjustment and achieving a fine tolerance. To an increasingly large extent the schools are called upon to assume the task of guiding the pupil along the popular principles of American democracy."¹

The school needs to understand the social, economic, and recreational institutions in the community and to be conscious of the problems which emerge from them. Information is needed on the characteristics of a community which may influence the high school youth in his adjustment.

Measures of environment are important inasmuch as conduct is conditioned by the environment. A rich, stimulating,

¹ How to Evaluate a Secondary School (Comparative Study of Secondary School Standards. Washington, D. C.: 1938), p.18.

socially adequate environment leads to one kind of conduct; a poverty stricken, squalid, harsh or cruel environment leads to another kind of conduct. Delinquency flourishes in one kind of environment, good citizenship in another. Pupils coming from good homes with thoughtful parental supervision, attending good schools with an atmosphere of social cooperation and having access to adequate churches and playgrounds, are almost certain to exhibit desirable characteristics.²

Gage Park High School District. The district is a long, narrow one, extending from Cicero Avenue on the West, to Racine Avenue on the East, with the exception of a small area "back of the yards", running from 39th Street to 51st Street. Its narrow North and South boundaries from 49th Street to 59th Street include a homogeneous group of home owners in an area restricted to one and two family homes.

In the Chicago Recreation Survey³ the largest part of the district from Central Park Avenue on the West to Oakley Avenue on the East, and from 49th Place on the North to 59th Street on the South is designated as area number 63, Gage Park. Gage Park offers for public recreation six school playgrounds in addition to a Chicago Park District Park of 29.06 acres which contains facilities for almost every outdoor and indoor sport.

In the Gage Park field house is located a branch of the

² Percival Symonds, Diagnosing Personality and Conduct, (New York: Century, 1932), p. 13.

³ Arthur Todd, chairman, Recreation by Community Areas in Chicago, Vol. IV, (Chicago Recreation Survey, 1937).

public library. Eight churches offer private recreation of many sorts. Youth organizations are numerous; five Boy Scout Troops, three Camp Fire Girls' Troops, and one Girl Reserve. Two movie houses offer commercial recreation. In 1937, there was a total of 7,333 families which average 4.2 persons living largely in one-family dwellings. Checking these statistics one finds that the students of this area should exhibit desirable characteristics.

In the district of Gage Park High School, students come from fourteen public, and about an equal number of parochial schools, not counting the scatterings of ones and twos who transfer from parochial schools not in the immediate high school district. (See Appendix)

Cook⁴ defines a community school briefly as one which:

1. Orients its aims and purposes to pupil needs and background
2. Uses an array of community resources in its program
3. Functions as a locality service center
4. Seeks increasingly to democratize the whole of life in school and outside
5. Assumes a major responsibility for the improvement of the area, life, and institutions

Gage Park High School is a community school in a district best described by Helen Heffernan:⁵

⁴ Lloyd A. Cook, "The Meaning of a Community," Educational Methods XVIII (March, 1939) p. 259

⁵ Helen Heffernan, "Wider Utilization of the Environment," Newer Practices of Promise, Twelfth Yearbook, (Department of Supervisors and Directors, N. E. A. 1939), p. 60.

A community must be interpreted broadly to mean an aggregation of people who are conscious of unity and able to act as a corporate group who occupy a contiguous area and who have some common traditions and some common service institutions.

Unity of community. The community which Gage Park High School serves is one which has been highly conscious of its civic rights. Originally the plans of the Board of Education called for a junior high school but the residents organized and protested so effectively that the plan was dropped. Later, it was decided to use the site for a vocational school for girls, and the plans and buildings were developed for that purpose. Once more this strongly organized community stormed the downtown offices until plans were satisfactory to the objecting group, and until the standard high school which they demanded was made possible. The pressure of the group was again exerted to change the name Verdi, which had been decided upon, to Gage Park High School. So strong was the community feeling that the same name was repeated for the high school that was held by the adjacent elementary school, Gage Park Elementary School, and the neighboring small park, Gage Park. Thus, it is evidenced that Gage Park High School serves a community highly conscious of its civic rights and keenly alert to any infringement of that privilege, and it may be expected that the pupils will exhibit similar traits.

The school exists for the benefit of the boys and girls of the community it serves. The type of people, their vocations

and interests, their tendencies and prejudices, their abilities, their racial characteristics, their hopes and prospects regarding the future, their customs and habits are different from other communities. The school should know the distinctive character and needs of the people and groups of people of the school of the community, particularly those of the children, so that the school may adapt its general philosophy and specific purpose to its own community and to the larger community of which it is a part.⁶

It is desirable for this study to ascertain whether the Gage Park High School curriculum, incorporating the basic philosophy of the objectives of education, is meeting the needs of the school community and pupil population as evidenced by its socio-economic status, out-of-class activities, and by the achievement in subject matter.

Socio-Economic status.⁷ More adequate help can be given to children of all ages, but especially to high school students, if something is known about their background. The ideas that have been instilled in them, the ideals to which they aspire,

⁶ How to Evaluate a Secondary School, op. cit., pp. 18-24.

⁷ Frances Schaefer, Placement Counsellor, Gage Park High School, "Results of the Study of the National Background and Economic and Educational Status of Parents of Gage Park High School Students." Unpublished report. November, 1939.

and the interests that motivate them to continue this education, are the results, to a large degree, of this environment. This economic situation and the educational and national background of the parents constitute a considerable part of this environment. Consequently, a knowledge of these factors should enable the school to render its greatest service to the student, both as an individual and as a member of the student body.

A study of the environment that influences the Gage Park student body was made by means of a questionnaire. Questions relating to the birthplace of both parents gave information concerning the national background; those relating to the years of attendance at school gave an adequate picture of the educational background. The relationship between the number of members in the family and the number of rooms in the home gave partial information about the economic status--information that was completed by knowing how regularly the father was employed and whether or not the mother worked outside the home.

The results of the questionnaire of November, 1939, which was answered by 1693 students, of whom 685 were 1B's, have been summarized in tabular form. The actual figures were compiled for the entire school in percentages, since it was unnecessary to divide the percentages by semesters, because when samples were taken to determine the best methods of statistical treatment, it was found that all semester, regardless of the number of students in each, presented the same picture. In Table I

percentages have been found for the various sub-divisions under each main topic--national background; educational background; and economic status.

National background. It is of interest to note that the national background of both parents presents a similar picture. Forty-two per cent of the fathers and forty-seven per cent of the mothers were born in the United States. While the questionnaires were not checked to find the exact per cent of cases in which both parents were born in this country, a cursory survey showed that in most cases both parents were natives of the same country. Hence, it is safe to say that approximately two-fifths of the Gage Park student body are second generation Americans. Poland and Czecho-Slovakia rank next with 20.5 per cent and 12 per cent respectively in Table I. Austria and Lithuania have each contributed 3.5 per cent. Twenty other countries, each contributing less than one per cent have been grouped together under one general heading. Information is lacking in a certain per cent of cases, because the child himself does not possess it; in many cases where the parent is deceased, the child wrote the word "deceased" and filled in no blanks relating to that parent. This is true in all parts of the study where "Information Lacking" has been used as a heading in Table I.

Educational background. The value of education will surely be recognized in a school community where only 3.5 per

cent of the parents have no schooling. Even though this percentage might be increased if information were available when it is lacking, the number would still be low. As Table I shows, 50.5 per cent of all parents attended the elementary school; of this number, 41.5 per cent received from five to eight years of schooling. There is a sharp decrease, as is to be expected, in the number who received a college education. Nevertheless, the educational background of the Gage Park student body presents a favorable environment.

Economic status. A large area of the Gage Park High School district contains many small homes and bungalows; a situation such as this can usually be interpreted to mean that these are the dwellings of families containing several children. The actual figures show that this is true of this particular neighborhood. There are four members in 27 per cent of the families; five in 25 per cent; six in 15 per cent; and seven in 10 per cent. Many families have eight, nine, ten, eleven or more members; in many of these very large families, there are married children who have brought the husbands, wives, and grandchildren to the parental home.

Corresponding to the size of the family is the size of the dwelling. In Table I four, five, and six-room homes and apartments dominate. It is noteworthy that 13.5 per cent of this population occupy seven or more rooms. While overcrowded

living conditions may prevail in a small number of cases, it is not a common problem of the district in general.

Employment or lack of employment is usually a good index of the economic status of a community. In this study, it was found that 75 per cent of the heads of the families are regularly employed while only 8 per cent are employed seldom or not at all. On the other hand, 77 per cent of the mothers remain at home, while only 12 per cent are employed regularly outside the home. In answer to the question regarding the type of work engaged in by the mother, most students replied: "She does not want to work; she stays at home."

In another questionnaire given during the February-June semester, the 1A group under research were asked to list any opportunity that they had had to earn money. The answers indicated a wide variety of odd jobs, the most frequent occurring number was the selling of papers by the boys and the caring for children by the girls. Most of the work was of the nature of work in the home done presumably in return for a weekly allowance. This list does not include the students who receive aid from the National Youth Administration.

Answers seem to indicate that the same number of boys and girls (147) receive an allowance of \$1.00 or less weekly. However, as the income rises from \$2.50 going towards the \$5.00 mark, the indications are that the boys have probably found more gainful out-of-school employment--employment to

TABLE I

RESULTS OF THE STUDY OF THE NATIONAL
BACKGROUND, AND ECONOMIC
AND EDUCATIONAL STATUS OF PARENTS OF
GAGE PARK HIGH SCHOOL STUDENTS*

NATIONAL BACKGROUND

Place of Birth	Father	Mother
United States		
Chicago	31%	35%
Illinois (not including Chicago)	2%	2%
Other States	9%	10%
Poland	19%	22%
Czecho-Slovakia	12%	12%
Austria	4%	3%
Lithuania	3%	4%
Other Countries	13%	10%
Information Lacking	7%	2%

EDUCATIONAL BACKGROUND

	Father	Mother
Did not attend school	3%	3.5%
Elementary grades completed		
Grades 1 - 4 (incl.)	20%	14%
Grades 5 - 8 (incl.)	42%	41%
High School completed		
1 year	2%	4%
2 years	4%	5%
3 years	1%	1%
4 years	6%	9%
College completed		
1 year	0.5%	1%
2 years	1.5%	1%
3 years	0%	0.5%
4 years	1%	1%
Information Lacking	19%	19%

*Frances Schaefer, Placement Counsellor, Gage Park High School, (Unpublished study).

TABLE I (continued)

RESULTS OF THE STUDY OF THE NATIONAL
BACKGROUND, AND ECONOMIC
AND EDUCATIONAL STATUS OF PARENTS OF
GAGE PARK HIGH SCHOOL STUDENTS

ECONOMIC STATUS

Members in the Family

2	3	4	5	6	7	8	9	10	11 or more
1%	11%	27%	25%	15%	10%	5%	3%	2%	1%

Rooms in the Home

2	3	4	5	6	7	8	9 or more
0.5%	2%	24%	29%	31%	7.5%	3%	3%

Employment

	Father	Mother
Regular	75%	12%
Occasional	10%	4%
Seldom	3%	2%
Does not work	5%	77%
Information Lacking	7%	5%

which no school has given aid.

In general the students of the Gage Park High School seem to have few community handicaps. Enjoying good homes; adequate opportunities for recreation; and economic competence for leisure time activities; they should exhibit the desirable characteristics of good citizenship in school and community relations.

Leisure Time Activities. Every community is challenged by the crucial issue of the use of leisure time by the adolescent. The home, the church, and the school aim to establish right attitudes, but the press, the movies, the radio, and other interests also act as potential agents. In them may be found a fullness and appreciation of good music, fine art, beauty, color, and inspiration. In them, too, are potential negative influences of wrong standards and false philosophies of life. As part of a questionnaire, a study was made in May, 1940, of the out-of-class activities that attracted the Gage Park High School students. Answers to questions regarding hobbies, movie attendance, choice of radio programs, and type of reading were tabulated for the five hundred students under research in order to gain information on the attitudes and ideals of the differing groups--information which might aid in better guidance for the use of leisure time.

Hobbies. Freed by modern invention from home chores

formerly occupying their leisure time, the American youth now have much time in which to pursue their special interest.

Educators, wishing to ascertain these interests, may get general trends of choice by gathering the data on hobbies. Hobbies may include any one of the leisure activities--if the definition is accepted, that a hobby is an activity in which a major interest lies.

Hobbies may include some special outdoor sport, reading, radio, movies, collection, or creation of objects. Figure I represents the findings of the questionnaire section on hobbies. It may be seen that collecting ranked highest in the total of boys and girls for each system. Collections of everything from stamps to movie star pictures were mentioned by 38 per cent of the parochial and 32 per cent of the public school groups. The creation or building of models ranked 18 per cent for the parochial and 16 per cent for the public school students. Special outdoor sports were given 16 per cent for the parochial and 18 per cent for the public school. Both groups indicated that 6 per cent had some form of music for their hobby but the parochial group led in choice of dancing - 6 per cent parochial and 3 per cent public.

In addition to these five major interests there was a scattering of twenty more hobbies mentioned once or twice. However, the statistics in Figure I indicate that there are no significant differences in the hobbies of the two groups.

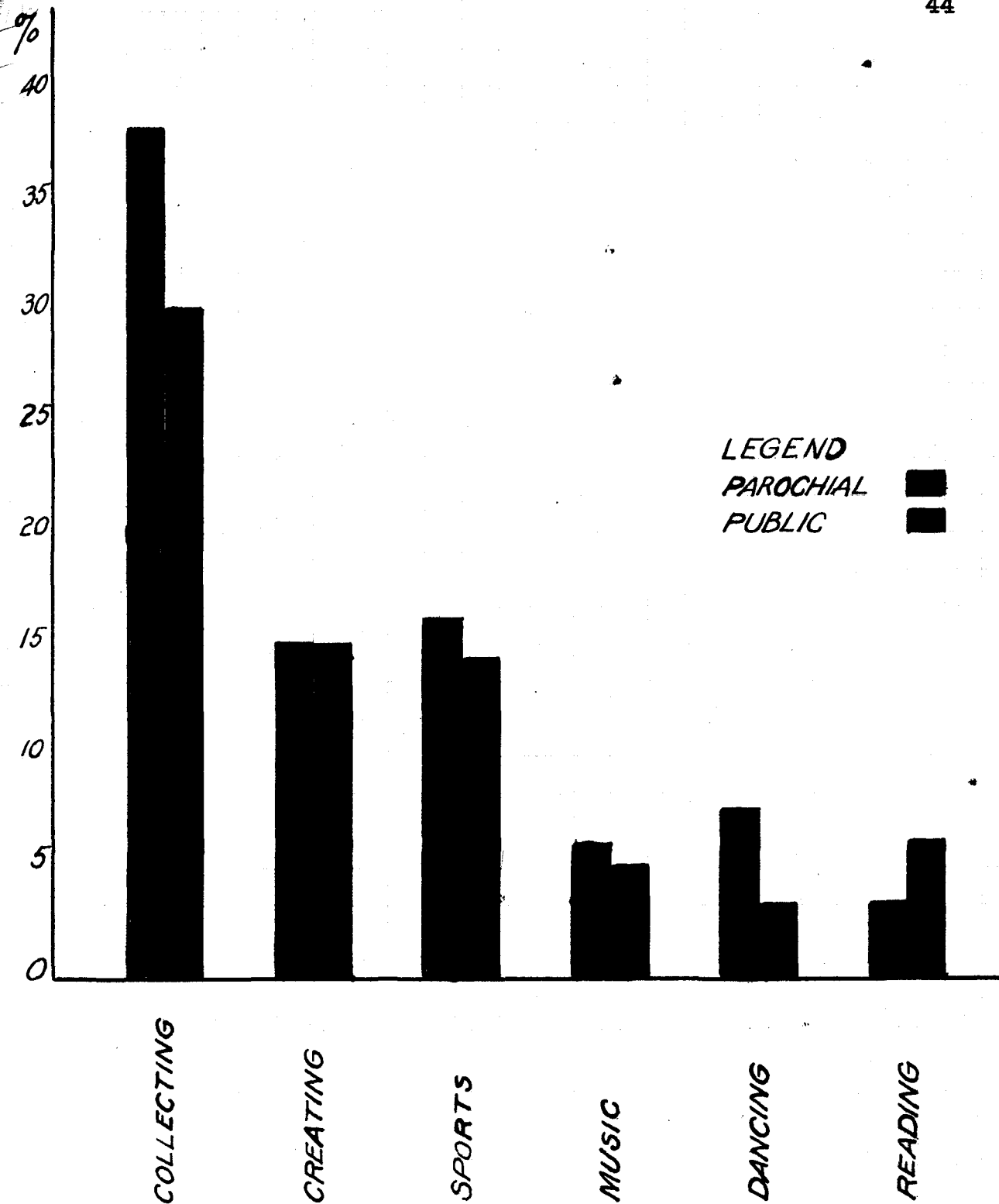


Fig. 1 TYPES OF HOBBIES OF 1A STUDENTS AT GAGE PARK HIGH SCHOOL

Movies. For the "movie-made children", the cinema is the place where new interests are stimulated and experiences often exploited which are vicarious and foreign to those which the community had fostered.

Dale⁸ reports that the movies seem a logical place in which the adolescent may become acquainted with some of the problems which he will face as an adult. If these problems are realistically and truthfully presented they may aid in the solution of life problems to come. On the other hand, adolescence is likely to be a time of instability and one in which the individual is unusually susceptible. Those who are interested in guiding the coming generation must pay attention to influence of attendance at motion pictures.

William Lewin⁹ reports that the photoplay is a prominent and it would seem a permanent feature of the American "scene". Children and young people of school age attend our "people's theaters" in large and perhaps increasing numbers, and, there are valid reasons to believe, are influenced by them--influenced in attitudes, in points of view, in tastes, and probably in conduct and character. This being true, school authorities must

⁸ Edgar Dale, Children's Attendance at Motion Pictures, (New York: Macmillan Company, 1935), pp. 21-22.

⁹ William Lewin, Photoplay Appreciation in American High Schools (National Council of English Teachers. Chicago: Appleton Company, 1934)

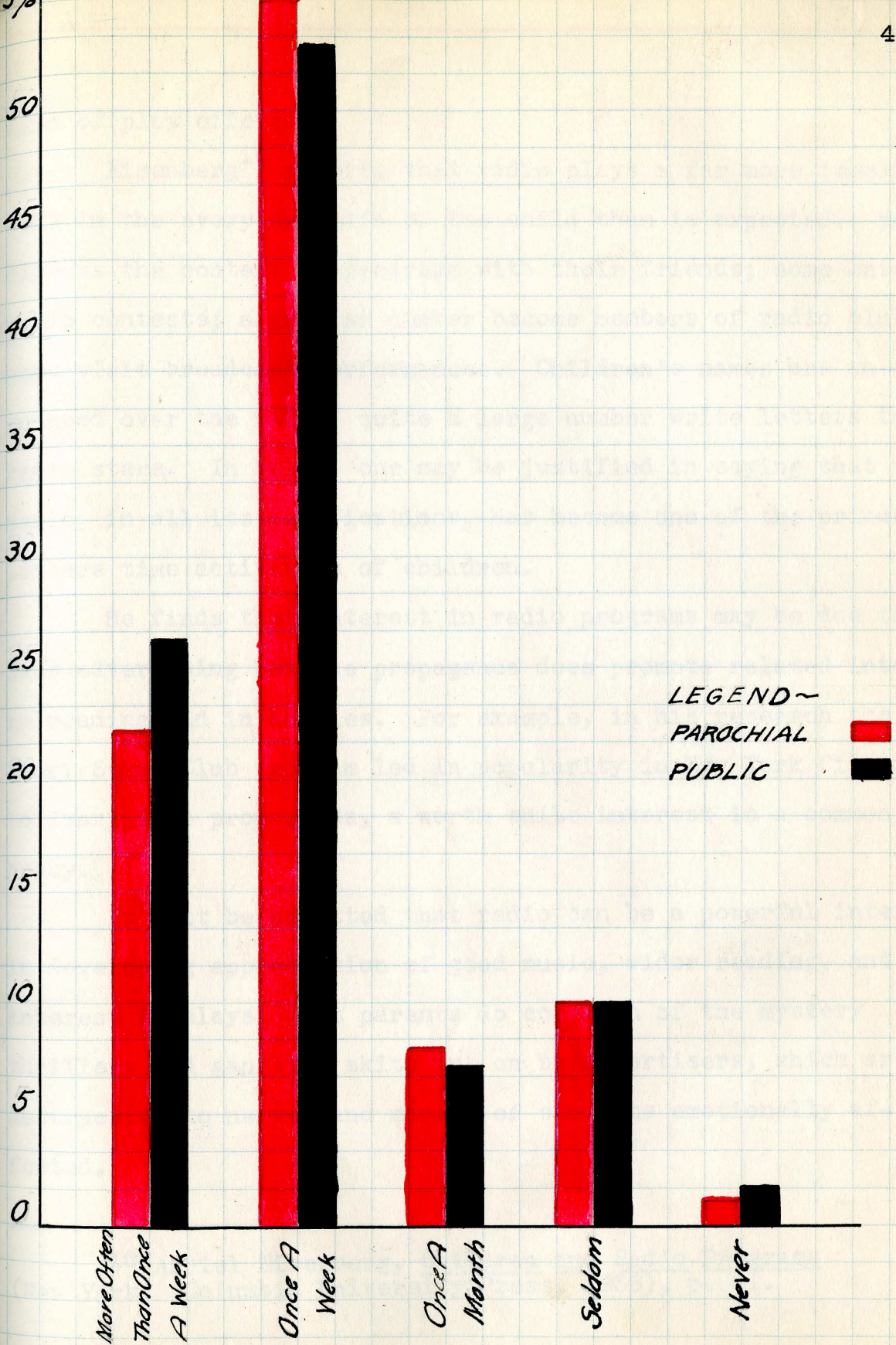
widen the scope of their programs and utilize, in all feasible ways, this new and potentially promising agency for education.

Without guidance, this stimulation and excitement of vicarious experience gained in movies may seriously influence the attitudes, point of views and conduct of some personalities and cause cases of maladjustment.

In Figure II, it was desired to obtain information on how much time was regularly devoted to movie going. The results showed that .009 of the parochial and .018 of the public school group never went to the movies. Both groups report 10 per cent as attending seldom, which 8 per cent and 7 per cent respectively said they attended once a month. Again they were paired quite evenly in the data on attendance of once a week - 55 per cent parochial and 53 per cent public; 22 per cent parochial and 27 per cent went oftener than once a week.

The results are indicative that a normal situation exists in the Gage Park High School community. Once a week at a movie is not an undue amount of time and might be expected from the social life of the community.

Radio programs. In any community the choice of radio programs is a significant one for trends in culture and in taste, since the pupils have a wide variety of choice and free selection of regularly repeated programs, contrasting with the movie selection where community patronage usually decides the



LEGEND ~
PAROCHIAL [red square]
PUBLIC [black square]

Fig. 2 FREQUENCY OF MOVIE ATTENDANCE OF IA

kind of play offered.

Eisenberg¹⁰ reports that radio plays a far more important role in the every-day life of the child than is expected. Many discuss the content of programs with their friends; some enter radio contests; a greater number become members of radio clubs; some visit broadcast performances. Children's names are announced over the radio; quite a large number write letters to radio stars. In brief, one may be justified in saying that the radio, in all its ramifications, has become one of the principle leisure time activities of children.

He finds that interest in radio programs may be due to mass advertising but the propaganda does promote related interest in reading and in hobbies. For example, in his research the Ivory Stamp Club program led in popularity in New York City due to Ivory Soap propaganda, a worth while interest in a common hobby.

It must be admitted that radio can be a powerful interest in developing appreciation of good music, wider reading, and interest in plays. But parents do complain of the mystery thrillers and gangster skits put on by advertisers, which are destructive to nerves and morale of students emotionally affected.

¹⁰ Azriel Eisenberg, Children and Radio Programs (New York: Columbia University Press, 1938), p. 21.

One of the first surveys of children's preferences in radio programs was made in December, 1931, by Felicio M. Ryan¹¹ of the Peoria, Illinois public school system. She submitted a questionnaire to about 900 pupils of the seventh and eighth grades in which the children were asked:

1. To state whether they had a radio at home, and if so, its make
2. To indicate when they listened to it
3. To underline the programs to which they liked to listen from a given list of fifty-seven specific programs and general programs
4. And to name then their favorite station announcer, and local program

Her findings briefly summarized were that 655 families, including many in the poorer districts had radios, and that the children preferred dramatized skits, dialogues, and stories rather than musical programs. Most of the children checked a great number and variety of programs.

In this questionnaire which was answered by five hundred* students, Figure 3 indicates the results. Roughly speaking, the forty-five favorite programs were divided into five types:

(1) Personalities - parochial 31 per cent and public 33 per cent. Kay Kyser, Henry Aldrich, Bob Hope were more popular with girls than boys while Jack Benny, Joe Penner and Fred Allen were the boys' favorites. (2) Plays and skits with Lux Theater away ahead and One Man's Family second - parochial 19 per cent and

¹¹ Felicio M. Ryan, Report on Radio Preferences, (Unpublished report. Cooperative Committee on Radio Research. Columbus, Ohio: University of Ohio, 1932).

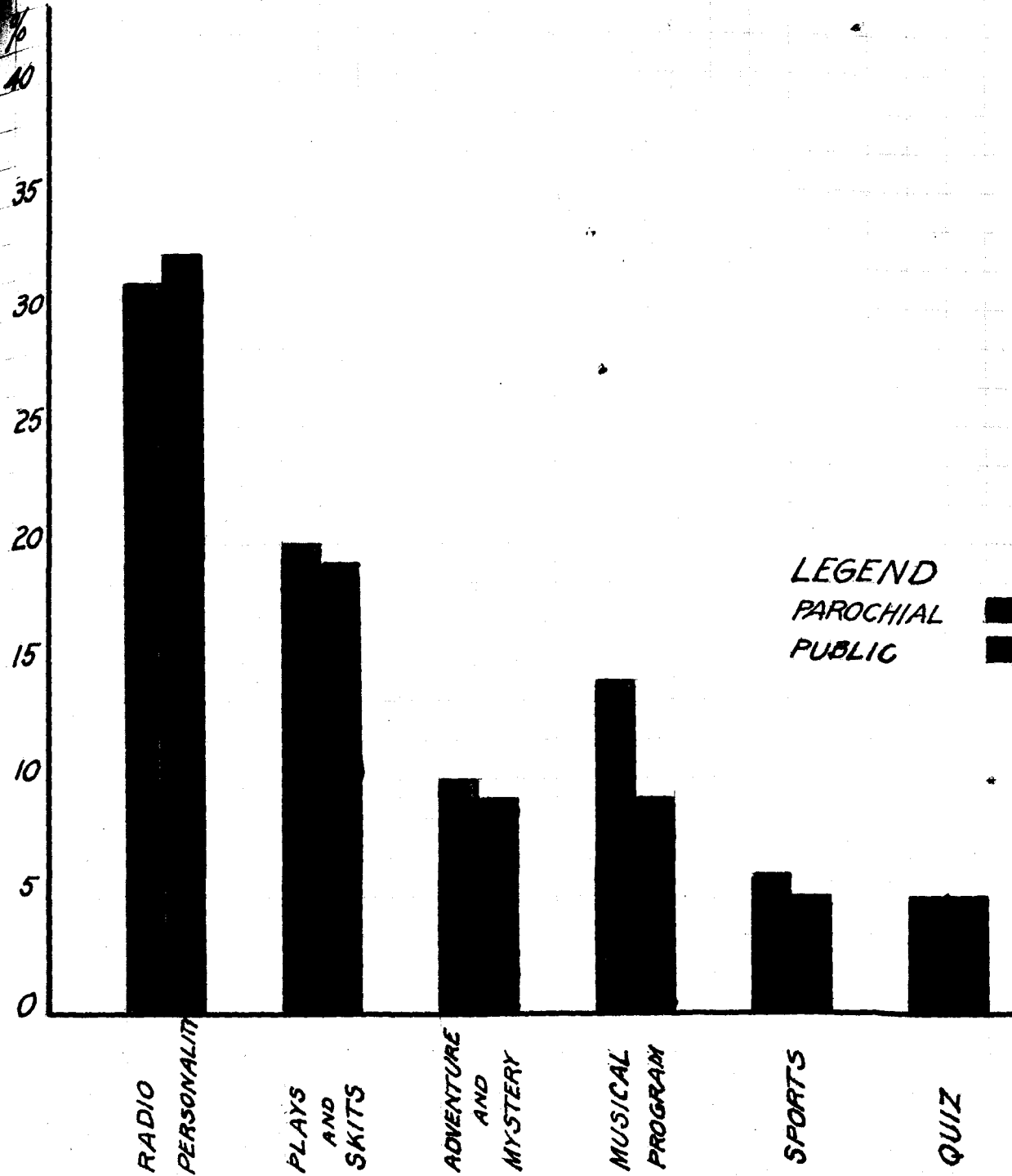


Fig.3 CHOICE IN RADIO PROGRAMS OF 1A STUDENTS AT GAGE PARK HIGH SCHOOL

public 20 per cent. (3) Skits featuring mystery or adventure - parochial 11 per cent and public 10 per cent. (4) Quiz programs - parochial 4 per cent and public 4 per cent. (5) Sports and news broadcasts - parochial 6 per cent and public 5 per cent.

These radio selections give evidence that they follow closely the hobby and movie interests and consequently the same interests may be expected reflected in free reading.

Free reading. Although the movies and the radio may be the eyes and the ears of modern youth, it is now, as always, in their reading that boys and girls are discovering vicariously the experience of the ages. The quality and choice of reading is now guided in our schools by the modern philosophy of English as "experience". English teachers strive to raise the quality of reading and to counteract the negative influence of pulp literature and coarse entertainment which are bidding for the attention of youth in the comic strip, the movie, and the radio. Strange to say, interests in reading change little.

Jordan¹² reports an interesting fact in comparing recent sketches of reading preferences among boys in Grades 6 to 11 with his own studies of 1915 to 1925. He concludes that there have been few changes of interest in the period 1918 to 1932. Boys exhibit love of adventure bearing on the wonderful invention

¹² A. M. Jordan, Interest in Reading (University of North Carolina Press, 1926), p.

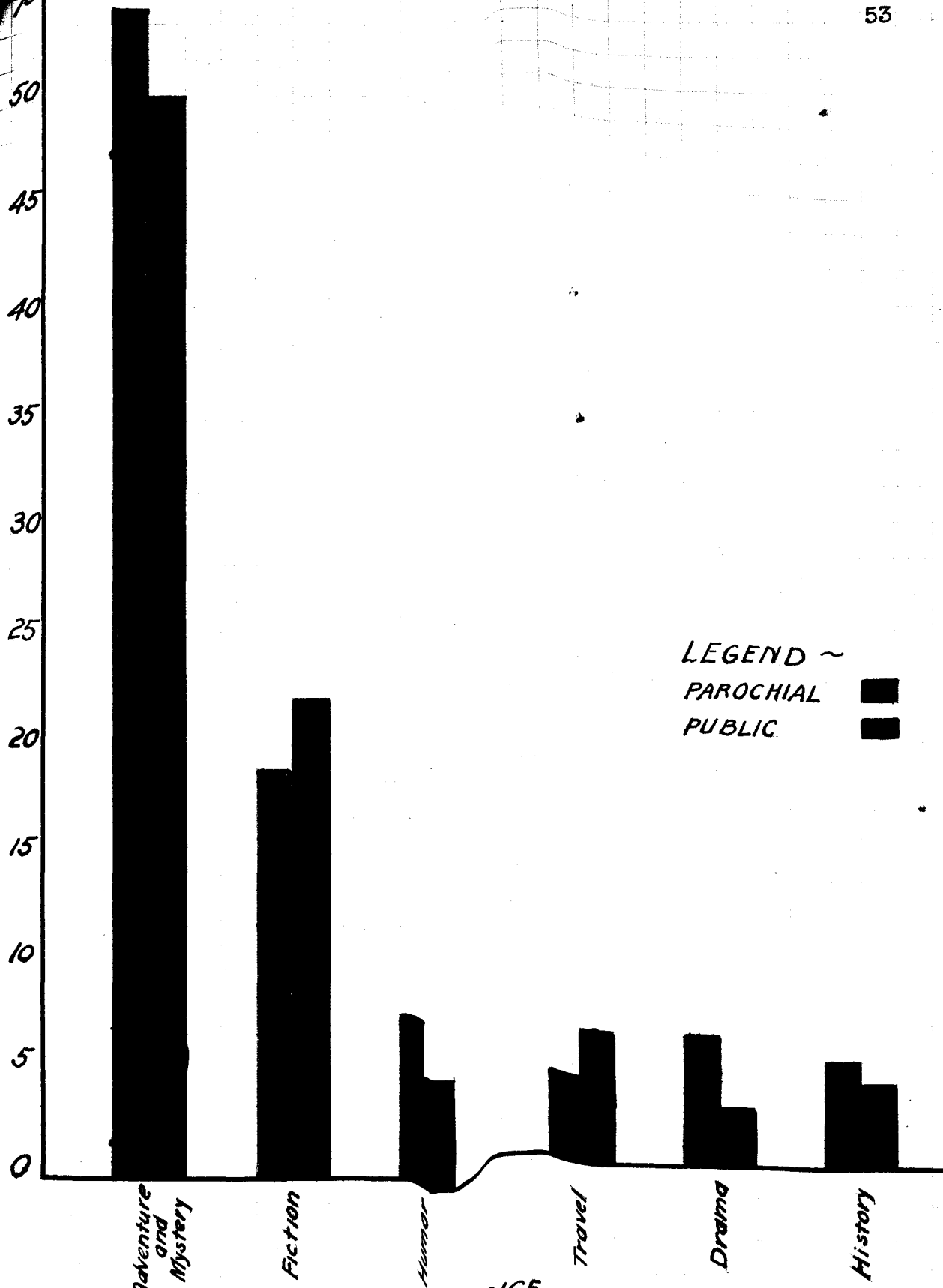
and the marvels in nature. Girls prefer romantic fiction and stories about home, school, and family. In Figure 4 is shown the per cent ratio of types of subjects of books read: (1) Adventure, mystery, and detective stories; (2) History; (3) Biography; (4) Fiction; (5) Drama; (6) Travel.

In New York City Jordan¹³ finds that there is a dissimilarity between reading interests of boys and girls in:

1. That the interest of boys and girls in reading are very dissimilar
2. That the major interests in reading of boys, age ten to thirteen, include four general types of fiction:
 - (a) books concerned with war and scouting
 - (b) those concerned with school and sports
 - (c) those concerned with Boy Scouts and
 - (d) those concerned with strenuous adventure
3. That in an analysis of these books it is found that the popular writers appeal most often to the instinct of mastery and fighting
4. That the interests of girls are principally concerned with fiction which portrays:
 - (a) home
 - (b) home and school
 - (c) school
 - (d) fairy stories
 - (e) stories with lustrous background
 - (f) love
5. That those authors popular with girls appeal to the following instincts, maternal kindness, attention to others, response to approval and scornful behavior, and to a less degree than in case of boys to rivalry.

In Figure 4 the books dealing with adventure and mystery were the type read by 55 per cent of the parochial and 50 per cent of the public school group. Fiction was the choice of 19

¹³ A. M. Jordan, "Reading Interests," High School Journal No. 18, (December, 1935), p. 264-72.



LEGEND ~
PAROCHIAL [Solid Black Box]
PUBLIC [White Box with Black Outline]

Fig. 4 FREE READING CHOICE OF IA STUDENTS AT HIGH SCHOOL

per cent of the parochial and 22 per cent of the public school students; 6 per cent of both groups read travel stories; 7 per cent of the parochial and 5 per cent of the public school students were interested in humor; 6 per cent of the parochial and 3 per cent of the public students read drama while the ratio for history was 5 per cent to 4 per cent in parochial and public choice.

In the data on the number of library books read, four parochial girls and twelve parochial boys, five public girls and four public boys admitted having done no free reading in the past two months. However, the average of the number of books read by the parochial students was 5.4 and 4.2 for the public school. The boys expressed a preference for books dealing with mystery and adventure, fiction, history and travel while the order for the girls of both groups was adventure and mystery, fiction, and home stories.

Gage Park High School students make good use of their leisure activity for reading normal types of literature very similar in choice to hobbies and radio programs.

This chapter which is a survey of the Gage Park High School community finds little difference in the students coming from different elementary school systems. It is evident that there is a conscious unity of common traditions and common service institutions. The students are typical high school students of comfortable living standards, with healthy interests

in leisure activities. Since no significant differences have been found in the survey of the community achievement of the groups will be compared statistically to find what differences exist.

CHAPTER IV

STATISTICAL TREATMENT OF DATA

Source of data. The data for this study were taken from the records of 768 freshmen students who enrolled from private and public elementary schools at Gage Park High School in September, 1939. All of these students were given the Kuhlmann-Anderson test of Mental Ability and the Chicago or Iowa Reading Test. The tests were given by the adjustment office, the personnel of which has had special training in this type of work. There is reasonable certainty that the tests were intelligently administered and accurately scored.

Personnel of group under research. Slightly less than two-fifths of the freshmen enrolled were from parochial schools, and the remainder were from public schools. Approximately six per cent of the parochial school group were from Lutheran schools and the balance were from Catholic schools. In a comparative study of the pupils from parochial and public schools it is important that representative groups from each type be selected. The problem of this study is complicated by the fact that a large percentage of the pupils graduating from parochial elementary schools continue on in private high schools.

Method of selecting samples. Representative samples were

obtained by matching each parochial school pupil who finished the second semester of the ninth grade with one from a public school. The pupils were matched on the basis of mental age, chronological age, and sex. Since the pupils were matched in mental and chronological age the intelligence quotients of each pair were approximately the same. Owing to the fact that there were many more pupils available from the public schools for matching, it was possible to match all of the pupils from the private schools for whom complete data were available. As a result of this matching the members of each pair were more likely to be similar than two cases independently selected.

The matching resulted in 125 pairs of boys and 125 pairs of girls, a total of 500 cases. Tables II, III, IV, and V give complete data for the 500 cases used in the study. The girls of each pair are arranged in the same serial order in Tables II and III and the boys are similarly arranged in Tables IV and V.

Reasons for scarcity of subject failures. This study does not include the ninth grade pupils who might have been included but who withdrew from school during the latter half of the second semester. Nearly all of these withdrawing were average pupils who received no grades because of continued absence and inferior work. Had they remained they would probably have received failures in one or more subjects under study. This would have increased the number of failures.

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR GIRLS ENROLING FROM PAROCHIAL SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
132	9.8	4	4	3	4	2	4	45	49
125	11.0	5	4	5	5	4	5	56	60
125	10.6	5	4	4	5	3	4	56	60
122	11.0	5	3	4	4	4	4	43	44
122	10.0	5	2	5	5	4	3	60	54
121	11.0	4	5	4	5	4	4	59	60
121	10.3	4	3	4	4	3	3	47	42
120	11.0	3	3	3	4	4	2	44	42
120	11.0	4	4	4	4	3	2	58	58
118	11.0	5	5	5	5	4	4	54	60
114	8.9	3	3	4	4	3	3	45	45
113	9.8	4	5	3	5	2	4	47	50
110	11.0	4	4	4	4	4	4	46	44
109	11.0	5	5	4	4	4	3	50	50
109	9.8	3	3	3	2	3	2	40	37
109	9.8	3	3	3	4	3	3	54	50
108	9.7	2	3	3	3	3	2	39	36
106	10.7	4	3	3	2	2	2	44	42
106	10.5	4	4	4	4	5	5	51	58
106	9.8	3	4	4	2	2	3	50	57

TABLE II (Continued)

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR GIRLS ENROLING FROM PAROCHIAL SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
106	9.6	2	3	2	3	2	2	43	40
106	8.1	3	3	4	3	3	2	45	45
106	7.8	3	3	3	3	4	4	46	51
105	9.5	3	3	2	2	3	2	42	39
105	6.0	4	4	2	4	3	4	45	46
104	11.0	4	4	4	3	3	3	41	48
104	11.0	4	4	2	3	4	4	46	40
104	10.2	3	4	3	4	4	3	43	42
104	9.8	4	4	2	4	4	5	45	53
104	9.8	5	5	4	4	3	3	48	48
104	8.8	2	2	3	3	2	2	40	40
104	8.6	4	4	3	4	4	5	47	46
102	11.0	4	3	4	4	4	4	52	43
102	10.6	3	3	3	2	3	2	49	44
101	11.0	4	4	3	3	3	3	46	51
101	11.0	5	3	3	3	3	4	45	46
101	10.5	5	4	3	3	5	4	46	48
101	10.3	4	4	3	3	4	2	46	41
101	10.0	4	4	4	4	4	5	45	44
101	9.5	2	3	2	2	2	2	39	37

TABLE II (Continued)

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INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR GIRLS ENROLING FROM PAROCHIAL SCHOOLS

I.Q.	READING Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
101	9.2	3	2	3	3	3	1	44	41
100	9.0	4	4	4	4	2	3	50	51
100	8.4	4	3	3	3	4	4	47	39
99	11.0	4	4	4	3	2	3	47	44
99	9.9	5	4	4	5	5	5	48	54
99	8.6	3	4	4	4	3	3	42	49
98	11.0	4	4	3	4	4	3	45	40
98	10.4	2	3	4	4	3	2	42	44
98	10.2	3	3	3	2	3	4	47	40
98	7.5	3	3	2	3	2	2	42	40
97	8.4	2	2	3	3	2	2	42	42
96	9.0	3	4	3	3	4	4	47	40
96	6.5	3	3	2	4	2	4	44	48
95	11.0	3	4	5	4	3	3	44	49
95	10.1	3	3	2	3	2	3	45	39
95	8.1	4	3	3	5	2	3	40	36
95	7.8	3	3	3	3	2	2	45	40
95	7.5	2	2	1	1	2	2	37	37
95	6.9	3	4	3	4	3	3	44	38
94	9.0	3	4	2	4	3	3	44	46

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR GIRLS ENROLING FROM PAROCHIAL SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
94	8.7	3	3	3	2	2	2	45	41
94	7.9	4	3	3	3	4	5	38	40
94	7.6	3	3	3	3	4	4	42	42
93	9.6	4	5	5	5	4	4	45	46
93	9.4	3	2	2	2	2	2	41	36
93	9.2	3	4	3	5	5	4	41	47
93	8.9	3	3	3	5	3	3	43	44
93	8.6	4	3	3	3	4	2	41	46
93	8.3	3	3	4	3	4	2	43	41
93	7.6	2	3	2	3	1	2	44	40
93	7.4	3	4	3	4	3	4	45	42
92	9.1	3	3	2	3	3	3	45	40
92	8.8	3	3	3	4	3	2	46	40
92	8.2	4	4	3	4	4	2	44	41
91	9.6	4	4	4	4	3	3	45	50
91	9.3	3	3	2	2	4	2	43	40
91	9.2	4	3	4	3	3	2	49	41
91	8.5	2	3	3	3	3	3	43	45
90	8.8	2	2	2	2	1	1	44	44
90	8.7	4	5	4	5	4	4	48	52

TABLE II (Continued)

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INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR GIRLS ENROLING FROM PAROCHIAL SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
90	8.0	3	3	2	3	2	2	40	38
90	7.1	3	3	2	2	2	1	38	38
90	7.0	2	3	3	3	3	3	44	44
89	9.2	2	3	2	4	3	3	41	40
89	8.2	3	3	2	3	3	2	43	36
89	8.1	3	3	4	4	2	2	47	51
88	9.9	4	4	3	4	3	5	47	51
88	9.9	4	5	3	2	2	3	45	40
88	8.8	3	5	4	3	3	4	44	45
88	8.2	3	4	2	3	2	2	47	46
88	7.9	3	3	2	3	4	3	48	39
88	7.5	3	3	3	3	2	3	39	41
88	7.4	3	2	2	2	3	2	41	37
88	6.0	3	4	3	4	3	3	47	44
87	9.8	2	2	4	2	4	3	45	43
87	9.4	3	3	2	2	1	2	40	42
87	7.4	2	2	2	2	3	2	33	34
86	8.7	3	3	3	3	4	4	42	39
86	7.0	4	3	3	4	4	4	48	50
85	8.9	4	3	2	2	2	2	40	40

TABLE II (Continued)

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR GIRLS ENROLING FROM PAROCHIAL SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
85	7.8	3	3	2	3	3	3	40	42
85	7.4	3	3	3	3	3	4	40	42
85	7.3	3	3	3	3	4	2	41	41
85	7.2	3	3	2	2	2	2	44	44
85	6.6	3	4	3	4	2	3	45	44
85	6.5	3	3	3	4	2	3	45	42
85	6.5	2	3	2	3	2	2	37	41
84	9.1	4	3	2	4	4	2	60	57
84	8.6	3	3	3	3	2	2	42	42
84	7.5	2	3	3	2	1	1	37	38
84	7.1	2	2	2	3	3	2	37	32
83	7.8	3	3	3	3	4	4	41	41
83	7.7	2	3	2	3	1	2	41	40
83	6.4	3	4	3	3	3	5	42	45
82	6.1	2	4	2	4	2	3	40	42
81	7.7	2	2	2	3	2	4	35	38
81	7.6	3	3	4	4	4	4	40	45
81	7.3	2	4	2	2	2	3	46	41
81	7.1	4	3	2	3	4	4	43	45
80	7.5	3	3	2	2	3	3	40	39

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR GIRLS ENROLING FROM PUBLIC SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
133	8.9	5	4	4	4	3	3	42	49
128	10.9	3	3	2	3	1	1	41	41
123	9.7	2	3	3	2	4	4	40	46
123	9.0	5	4	4	5	5	3	49	53
123	8.8	2	4	3	4	3	3	41	45
122	8.9	3	3	2	3	2	2	44	41
121	8.7	4	4	4	4	4	4	48	54
120	8.9	3	4	3	3	3	3	45	43
118	8.9	4	5	4	5	5	4	46	47
118	8.9	3	4	4	4	4	5	52	58
115	8.9	4	4	4	4	4	3	47	50
113	7.9	4	4	3	3	3	4	46	48
110	6.0	3	3	2	4	3	4	43	48
109	8.7	4	3	3	3	4	3	48	42
108	8.9	3	4	3	3	3	3	41	40
108	8.9	3	3	3	3	2	4	44	41
108	7.7	3	3	2	4	3	3	44	39
106	8.9	3	3	3	3	3	2	39	44
106	7.9	2	4	4	3	2	2	46	43
106	7.8	2	4	5	5	3	5	40	54

TABLE III (Continued)

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR GIRLS ENROLING FROM PUBLIC SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
105	8.7	3	3	2	3	2	2	40	40
105	7.7	3	3	3	3	4	4	42	43
105	6.9	2	3	2	3	3	3	41	40
105	6.8	3	2	3	3	4	2	47	41
104	8.9	4	5	4	5	4	5	50	50
104	8.4	5	3	3	3	2	4	46	47
104	8.3	4	5	4	5	4	5	52	49
104	7.4	3	3	4	3	3	4	41	42
104	6.0	3	3	3	3	3	2	44	42
103	8.9	4	5	5	5	5	4	51	51
103	8.9	4	4	4	4	4	4	53	49
103	8.7	3	4	4	4	3	4	46	43
102	8.7	4	5	5	4	4	4	55	60
102	7.2	4	4	3	4	3	2	46	46
101	8.9	3	4	5	4	5	4	47	47
101	7.6	2	3	2	3	2	2	44	39
100	9.5	3	4	4	4	4	5	50	48
100	8.9	5	4	5	5	4	5	54	53
100	8.5	4	4	4	4	4	3	48	51
100	7.7	3	4	4	5	4	5	44	55

TABLE III (Continued)

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR GIRLS ENROLING FROM PUBLIC SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
99	9.3	2	3	3	3	3	3	41	40
99	8.6	4	4	2	3	3	3	48	45
99	7.4	3	4	3	4	4	3	43	45
99	6.0	3	3	3	4	2	3	40	46
99	6.0	4	4	3	3	4	4	52	43
99	6.0	3	2	2	3	2	3	41	39
98	9.4	4	4	3	4	5	5	44	51
98	9.0	3	4	3	3	3	3	42	43
98	7.8	2	3	2	2	2	2	46	45
98	6.0	3	3	3	3	4	3	42	40
98	6.0	3	3	2	3	3	4	37	41
97	8.9	4	4	4	3	4	4	46	46
96	7.0	4	5	3	4	5	5	50	53
95	8.2	3	4	2	3	4	2	39	39
95	8.0	2	2	2	2	2	2	41	38
95	7.6	3	3	4	2	3	4	50	42
95	7.4	3	3	4	4	2	2	45	42
95	7.3	3	4	2	3	4	2	47	48
95	7.2	3	3	3	3	3	4	46	43
94	7.3	4	5	3	3	4	3	44	42

TABLE III (Continued)

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INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR GIRLS ENROLING FROM PUBLIC SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
94	6.2	3	3	2	2	2	2	40	42
94	6.0	3	4	2	2	2	2	37	40
93	8.2	3	3	2	4	3	3	46	48
93	7.9	4	4	3	4	3	5	42	50
93	7.4	4	3	4	3	2	2	46	42
93	7.4	3	2	2	3	2	4	41	40
93	6.6	3	4	3	3	3	4	43	44
93	6.4	2	3	3	3	3	2	47	37
93	6.0	3	3	3	3	4	4	45	41
92	8.9	2	2	2	2	3	2	38	39
92	7.6	2	3	3	3	2	3	42	38
92	7.5	4	4	3	5	4	2	44	42
92	7.4	3	3	3	4	4	3	41	41
92	7.4	3	4	2	4	2	2	49	49
91	7.4	4	3	2	4	4	3	43	41
91	6.5	2	4	3	4	4	4	42	42
91	6.1	3	2	3	3	2	2	46	40
90	9.1	3	4	4	4	5	4	40	41
90	8.7	2	3	2	3	2	2	34	37
90	8.2	2	2	2	3	2	4	36	41

TABLE III (Continued)

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR GIRLS ENROLING FROM PUBLIC SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
90	8.0	3	4	2	3	2	4	43	43
90	7.6	2	3	2	3	3	3	40	40
90	6.4	2	4	2	3	3	4	42	38
90	6.0	3	3	3	3	3	4	41	40
90	6.0	4	4	3	3	2	3	48	44
90	6.0	3	3	3	4	2	3	44	42
90	6.0	3	3	2	3	3	3	41	41
89	8.6	3	4	2	3	3	3	41	44
89	8.6	3	2	3	3	3	3	47	44
89	8.6	4	5	4	4	4	5	51	56
89	6.9	2	3	2	3	3	5	35	37
89	6.4	3	2	2	4	3	4	43	42
89	6.4	2	3	2	3	3	3	44	45
89	6.0	3	3	2	4	2	3	45	48
88	9.2	2	1	2	1	2	2	41	37
88	8.9	3	3	4	2	3	2	42	41
88	8.3	3	3	2	4	1	1	46	47
88	8.0	3	3	3	3	2	2	40	45
87	9.9	3	3	2	2	3	3	41	42
87	8.9	4	5	4	5	3	3	49	49

TABLE III (Continued)

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INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR GIRLS ENROLING FROM PUBLIC SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
87	6.0	3	3	2	3	3	3	42	33
87	6.0	4	3	2	3	4	4	47	50
86	8.7	3	3	3	2	2	2	41	38
86	7.4	3	4	4	4	2	2	40	42
86	6.5	4	3	3	4	4	3	52	49
86	6.0	2	3	3	3	5	4	44	43
86	6.0	3	3	2	3	2	2	48	41
86	5.8	3	4	3	4	3	3	43	40
85	8.8	4	4	4	4	3	4	45	48
84	6.9	3	3	3	2	2	3	43	41
84	6.0	3	3	3	3	3	4	40	42
84	5.6	2	3	3	3	2	3	41	39
83	6.0	3	3	2	2	2	2	40	39
83	6.0	3	2	2	2	2	2	46	40
82	5.3	2	4	3	3	2	3	41	40
81	6.0	3	3	2	3	2	2	39	40
81	5.8	4	3	3	4	4	5	49	44
80	8.9	4	4	5	4	3	4	48	54
80	7.2	3	4	3	2	1	2	38	39
80	5.6	2	2	2	3	4	2	48	45

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR GIRLS ENROLING FROM PUBLIC SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
78	7.2	2	4	2	3	3	5	40	47
76	6.0	2	3	3	2	3	4	39	45
76	4.2	2	2	2	2	2	2	37	37
73	5.0	3	3	4	3	4	4	41	48
72	6.0	3	3	2	3	2	2	45	38

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR BOYS ENROLING FROM PAROCHIAL SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
119	9.9	2	3	3	4	4	4	39	39
117	7.5	2	2	3	3	3	3	40	40
114	10.6	3	3	3	4	4	3	40	49
114	8.8	2	2	2	2	2	3	41	39
113	11.0	5	5	4	5	4	4	49	57
113	8.8	4	5	5	4	4	3	56	48
112	11.0	2	2	3	3	2	2	46	38
112	11.0	1	4	1	2	1	4	33	33
109	10.2	4	4	4	4	4	4	43	43
109	9.8	3	4	4	4	5	4	46	44
109	8.7	4	3	3	2	3	3	43	40
107	10.7	4	3	4	3	4	4	48	37
106	10.0	3	2	3	2	2	2	37	34
104	10.2	3	3	4	4	5	4	45	43
104	7.8	3	3	3	2	4	4	40	41
103	9.0	4	4	3	4	5	4	45	46
102	9.5	4	4	3	4	4	4	46	47
102	9.0	3	3	4	3	5	4	46	41
102	8.9	3	3	3	3	3	3	41	41
102	7.5	2	2	1	1	1	1	41	41

TABLE IV (Continued)

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INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR BOYS ENROLING FROM PAROCHIAL SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
101	11.0	3	2	3	3	4	3	36	34
101	11.0	3	2	4	2	3	4	42	32
101	9.7	3	4	4	4	4	5	49	49
101	9.5	3	3	3	3	4	3	40	38
101	9.1	3	3	4	3	5	5	44	42
101	8.5	2	2	2	2	4	4	39	38
101	8.1	2	3	4	4	5	4	49	57
100	9.9	3	4	3	4	4	4	53	47
100	8.9	4	3	3	3	3	4	40	42
100	8.2	3	3	2	3	5	4	45	40
99	10.3	3	3	4	3	2	3	44	37
99	9.2	2	2	2	2	4	3	41	35
99	9.0	2	3	4	3	3	2	42	37
99	8.2	2	3	2	3	2	4	45	35
99	7.9	3	3	2	2	2	3	31	37
98	9.7	4	2	3	3	5	4	46	36
98	8.4	4	2	2	3	3	4	38	47
98	7.7	2	3	4	2	3	3	44	41
98	7.3	2	2	2	3	4	4	42	38
97	10.8	3	4	4	4	4	4	45	54

TABLE IV (Continued)

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INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR BOYS ENROLING FROM PAROCHIAL SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
93	8.8	2	3	2	3	4	3	43	39
93	8.4	2	2	2	2	4	4	48	36
93	8.6	3	4	3	4	5	4	46	42
93	8.0	3	3	3	3	1	1	44	43
92	10.1	2	3	3	3	4	3	41	41
92	8.2	3	3	3	3	4	4	45	45
92	7.4	2	2	2	3	2	2	36	32
91	8.6	2	2	3	3	4	4	39	39
91	8.5	3	4	4	5	5	4	40	46
91	6.0	2	3	2	2	1	4	43	37
90	9.4	3	3	3	2	4	4	32	35
90	8.9	3	3	3	3	3	3	40	40
90	8.6	3	3	3	3	4	4	44	50
90	8.0	2	1	2	2	4	3	38	29
90	6.9	2	2	3	3	2	2	40	40
90	6.9	2	2	2	3	2	3	45	37
89	10.5	2	2	2	2	4	4	34	34
89	9.4	2	2	2	2	3	2	43	37
89	8.9	3	2	3	2	4	4	40	40
89	8.8	3	3	3	4	4	4	40	40

TABLE IV (Continued)

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR BOYS ENROLING FROM PAROCHIAL SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
89	8.5	3	2	2	2	3	2	39	38
89	8.2	3	4	2	4	4	4	40	51
89	7.2	3	3	3	3	4	5	39	37
89	6.4	2	2	2	2	3	4	40	42
88	8.7	2	2	2	2	1	1	37	37
88	8.5	2	3	2	4	3	3	39	40
88	8.3	3	2	3	3	4	4	41	41
88	7.3	3	3	3	4	3	5	40	46
88	6.0	2	2	2	2	4	4	40	36
87	10.8	3	3	3	4	1	3	41	38
87	10.2	4	4	4	4	5	4	44	44
87	9.9	3	2	2	2	2	2	41	32
87	8.9	3	3	3	3	4	3	38	38
87	7.9	2	2	3	3	4	2	43	44
87	7.1	3	3	2	3	4	3	44	39
86	9.9	3	3	3	3	1	1	47	47
86	8.3	2	2	2	2	5	4	45	44
86	7.8	3	3	3	3	3	3	39	42
85	7.8	2	2	2	3	3	3	39	33
85	4.7	2	3	3	2	3	4	40	41

TABLE IV (Continued)

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INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR BOYS ENROLING FROM PAROCHIAL SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
84	8.1	2	2	2	2	1	3	38	40
84	7.6	2	3	3	2	1	1	34	36
84	7.6	3	3	2	3	4	4	39	39
84	7.3	2	2	2	2	3	2	36	30
83	9.8	2	2	2	2	1	1	42	38
83	7.5	2	3	2	2	5	4	43	39
83	7.5	2	2	2	2	5	5	43	43
82	9.7	3	3	3	3	3	4	39	37
82	6.4	2	2	2	2	4	4	35	42
81	7.7	2	2	2	2	1	1	41	41
81	6.1	2	2	2	3	3	4	41	37
80	8.9	3	3	2	2	4	3	41	42
79	12.0	2	4	2	3	4	5	39	40
78	8.6	3	3	3	3	3	4	42	42
78	8.6	2	2	2	2	1	1	33	33
78	7.7	2	2	2	2	3	3	39	39
78	6.1	2	2	2	2	4	4	40	37
77	8.0	2	3	3	3	4	3	44	40
75	6.5	2	2	2	3	3	4	44	48
74	5.9	2	2	2	2	1	1	38	35

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR BOYS ENROLING FROM PAROCHIAL SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
74	5.2	3	3	3	2	4	4	35	33
72	5.6	2	4	2	2	3	3	38	38
71	5.9	2	2	2	2	1	3	44	38
69	5.3	3	3	2	3	5	4	35	38
67	6.7	2	3	3	3	4	5	37	40

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR BOYS ENROLING FROM PUBLIC SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
119	8.8	3	4	3	5	5	5	42	45
117	8.9	4	3	3	2	4	4	45	39
117	8.9	3	4	4	5	5	4	46	51
117	7.1	3	3	3	3	5	5	42	40
114	8.9	5	5	5	5	4	5	48	60
114	8.1	3	3	4	3	5	4	45	45
113	7.3	4	3	3	3	4	4	40	44
111	8.7	4	4	4	3	5	4	47	47
109	8.9	2	4	3	5	4	4	44	47
109	8.2	3	5	3	4	5	4	44	47
109	7.5	4	2	3	3	3	4	40	39
108	8.9	2	2	3	2	4	2	43	39
107	8.9	3	3	4	4	5	4	46	46
105	7.7	4	3	3	3	4	4	45	35
104	7.9	2	2	2	2	2	2	35	39
103	11.0	4	2	3	3	4	4	40	35
103	8.9	2	3	2	4	4	4	41	40
103	7.3	3	3	4	4	4	2	45	40
102	8.5	3	4	2	4	4	4	41	44
101	9.3	3	2	3	2	4	4	39	44

TABLE V (Continued)

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR BOYS ENROLING FROM PUBLIC SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
101	8.9	3	2	2	2	1	1	43	40
101	8.9	4	4	4	5	5	5	52	45
101	8.5	2	3	2	5	4	5	40	45
101	7.3	3	4	4	3	3	4	47	45
101	7.0	2	3	2	2	2	4	43	39
101	6.6	3	3	2	3	4	4	44	44
99	8.9	3	2	3	2	3	4	40	40
99	8.9	4	3	3	3	4	3	47	40
99	8.7	3	4	3	4	5	4	40	42
99	8.3	2	2	3	2	5	4	46	40
99	8.1	2	2	3	3	3	5	40	40
99	7.9	2	2	2	3	4	4	39	41
99	7.7	2	2	3	3	3	4	44	46
99	6.1	3	2	3	3	4	3	37	44
98	8.9	4	4	4	3	5	5	48	48
98	8.9	3	4	2	2	4	5	44	40
98	8.0	3	3	3	2	3	3	41	39
98	7.6	3	4	3	4	3	4	43	42
98	7.5	2	3	2	2	4	4	39	39
97	9.8	4	3	3	3	4	4	44	39

TABLE V (Continued)

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INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR BOYS ENROLING FROM PUBLIC SCHOOLS

I. Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
97	9.8	3	4	4	4	2	4	52	42
97	6.3	3	3	3	3	3	4	51	46
97	5.5	4	4	4	4	4	5	40	49
96	8.9	2	3	4	3	4	4	35	42
96	8.5	3	2	2	2	2	4	37	38
95	8.4	2	3	2	1	3	3	39	39
95	8.1	2	2	2	1	2	4	40	39
95	6.7	2	2	2	2	1	1	39	39
95	6.7	3	2	2	2	4	3	40	38
95	6.2	3	2	2	3	4	3	43	35
94	8.9	3	4	4	4	5	4	39	41
94	8.9	2	2	2	2	1	1	43	38
94	8.9	2	2	2	2	3	3	36	35
94	8.8	3	4	4	4	4	4	45	45
94	8.7	3	2	3	3	5	4	38	36
94	8.1	3	2	3	4	3	2	38	41
94	8.0	3	3	3	4	5	4	41	44
94	7.8	2	2	3	3	3	2	38	34
94	7.4	3	3	4	2	5	5	44	38
94	7.3	3	3	3	2	4	2	46	39

TABLE V (Continued)

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR BOYS ENROLING FROM PUBLIC SCHOOLS

I. Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
90	7.5	2	4	4	4	3	4	42	51
90	5.6	2	3	2	4	4	3	39	49
89	8.9	2	3	4	4	5	5	46	51
89	8.2	4	4	4	4	4	4	47	46
89	8.1	3	3	3	3	5	5	43	45
89	7.7	2	2	2	2	2	2	42	36
88	8.9	2	2	2	2	2	2	44	31
88	8.3	3	3	2	3	4	4	40	40
88	7.9	3	3	3	2	2	4	40	43
88	6.2	2	3	2	2	4	2	39	34
87	7.3	3	2	3	2	4	4	48	30
86	9.4	2	2	3	3	4	2	36	34
86	8.9	3	2	2	2	2	2	37	38
86	8.0	2	3	3	4	4	4	40	47
86	6.8	3	2	3	3	2	4	38	43
86	6.5	2	3	2	2	2	3	39	39
85	8.7	2	2	2	3	1	1	40	40
85	6.0	2	2	2	2	3	2	44	34
84	8.8	2	3	3	3	4	4	40	37
84	7.1	3	3	2	2	4	4	41	39

TABLE V (Continued)

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR BOYS ENROLING FROM PUBLIC SCHOOLS

I.Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
84	7.1	2	2	3	2	4	4	32	35
84	5.6	4	4	3	2	4	4	38	39
83	6.0	3	2	2	3	4	3	40	36
82	8.6	3	4	3	3	4	4	45	46
82	6.8	2	2	2	2	3	3	28	28
82	6.2	3	3	3	3	5	4	42	40
82	6.1	2	4	3	4	4	4	46	42
82	6.0	3	2	2	2	1	2	44	35
81	8.9	2	3	2	3	4	3	41	39
81	5.8	3	4	2	2	2	3	39	37
79	7.9	2	2	2	3	4	2	43	35
79	6.0	3	3	3	4	2	4	41	41
79	6.0	2	2	2	2	3	2	31	42
79	6.0	3	3	3	2	5	4	44	39
78	6.0	2	2	2	2	1	3	33	24
77	7.2	2	2	2	2	4	3	39	34
77	6.9	3	3	2	3	5	4	40	39
77	6.0	2	2	2	2	3	3	38	40
77	5.8	3	4	3	3	4	4	52	49
75	5.7	2	2	3	3	3	2	40	43

INTELLIGENCE QUOTIENT, READING SCORE, AND FIRST AND SECOND SEMESTER GRADES IN ENGLISH, GENERAL SCIENCE, PHYSICAL EDUCATION, AND TOTAL TRAIT RATINGS FOR BOYS ENROLING FROM PUBLIC SCHOOLS

I. Q.	Reading Score	English		General Science		Physical Education		Trait Ratings	
		1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.	1st. Sem.	2nd. Sem.
74	6.1	2	3	2	2	2	2	39	36
73	5.3	2	4	2	2	4	3	42	39
72	6.6	3	3	4	2	5	5	45	36
67	5.3	3	4	3	2	4	4	40	38
67	5.2	2	2	1	2	3	3	36	38

Anti-failure policy. The policy of anti-failure was instituted in 1937 by Dr. William H. Johnson, Superintendent of Chicago Schools. Failure is no longer accepted as a normal accompaniment to education. Finding that poor reading habits are at the base of poor study habits educators in the Chicago School system have established remedial reading classes in the high schools, thereby lessening failures in English. The student counseling is a special technique which has been a factor in lessening failures.

Tables VI, VII, VIII, and IX are summaries of data extracted and assembled from 1,011 subject failure cards sent from each high school in District Three to the Office of the High School District Superintendent, Mr. Hagen.

TABLE VI

HIGH SCHOOL FAILURE STUDY - SUMMARY OF DATA
EXTRACTED AND ASSEMBLED FROM 1,011 SUBJECT FAILURE CARDS, JUNE, 1940.

Causes of Failure	Number	Percentage
1. Does not do required work	937	93.67%
2. Excessive absences	694	68.62%
3. Indifferent attitude	572	56.57%
4. Lack of cooperation	417	41.24%
5. Lack of initiative	378	37.38%
6. Failure to make up back work by:		
a. Reporting for individual help and make-up period planned by teacher	347	34.32%
b. Completing special individual assignments outlined by teacher	341	33.72%
c. Taking special tests to complete work	21	2.07%

HIGH SCHOOL FAILURE STUDY - SUMMARY OF DATA
EXTRACTED AND ASSEMBLED FROM 1,011 SUB-
JECT FAILURE CARDS, JUNE, 1940.

Causes of Failure	Number	Percentage
7. Poor reader	238	23.54%
8. Home conditions	215	21.27%
9. Employed after school	172	17.01%
10. Missing or failing important tests	119	11.77%
11. Emotional maladjustment	102	10.00%
12. Cutting classes	100	9.89%
13. Physical maladjustment	80	7.91%
14. Too many outside activities	76	7.51%
15. Habitually lacks necessary materials and supplies to work with	63	6.23%
16. Poor background for subject	54	5.34%
17. Absent at beginning of semester	45	4.44%
18. Low mental ability	39	3.85%
19. General laziness	35	3.46%
20. Carelessness - never finishes work	27	2.67%
21. Miscellaneous causes of failure	54	5.34%

Table VI summarizes the causes of failure in numbers and percentage.

Table VII shows the efforts of the adjustment or division teacher to help prevent failure.

TABLE VII

EFFORTS OF ADJUSTMENT TEACHER, OR PERSONNEL
TEACHER, OR DIVISION TEACHER TO HELP

1. Diagnostic tests	39	3.85%
2. Conferences with		
a. Pupil	663	65.57%
b. Parents	314	31.05%
c. Subject teacher	87	8.60%
3. Offered to help but pupil failed to take advantage of it	331	32.73%

EFFORTS OF ADJUSTMENT TEACHER, OR PERSONNEL
TEACHER, OR DIVISION TEACHER TO HELP

4.	Arranging special make-up program for pupil's free or study periods	302	29.87%
5.	Recommending modification of pupil's program	40	3.95%
6.	Recommending that pupil repeat subject next semester	28	2.87%
7.	Recommending that pupil drop subject	25	2.47%
8.	Referring pupil to a clinic	24	2.37%
9.	Assisting pupil to form better study habits	19	1.87%
10.	Referring pupil to Bureau of Child Study for examination	13	1.28%
11.	Recommending remedial reading class	9	.89%
12.	Individual follow-up to see that pupil attends make-up classes	9	.89%

Table VIII and IX show the effort made by the subject teacher, the administrative assistant and the principal.

TABLE VIII

SUBJECT TEACHER'S EFFORTS TO HELP

1.	Holding conferences		
	a. With pupil	593	58.65%
	b. With parents	213	21.06%
	c. With division and adjustment teacher	87	8.60%
2.	Individual attention		
	a. Individual help in regular class	298	30.26%
	b. Individual help in study or adjustment period	289	28.58%
	c. Individual assignments for class and home study	140	13.84%
	d. Adjusting requirements in course to suit pupil's ability	34	3.36%
	e. Individual tutoring after school	17	1.67%
3.	Referring pupil to adjustment or personnel or division teacher	709	70.12%
4.	Notifying parent of impending failure	237	23.44%
5.	Warning pupil of poor work	104	10.28%

TABLE VIII (Continued)

89

SUBJECT TEACHER'S EFFORTS TO HELP

6.	Giving pupil time for overdue assignments and tests	77	7.61%
7.	Insisting upon regular attendance and definite home work	63	6.23%
8.	Arranging for tutoring by capable pupil	21	2.07%
9.	Attendance officer investigates absence	17	1.67%
10.	Advisor visits home of pupil	8	.78%
11.	Tutoring by teacher after school	7	.69%

TABLE IX

EFFORTS OF PRINCIPAL OR ADMINISTRATIVE ASSISTANT TO HELP

1.	Conferences with		
	a. pupil	142	14.04%
	b. parents	89	8.80%
	c. teacher	37	3.66%
2.	Follow-up on handling case	167	16.51%
3.	Failure report checked and signed by principal	199	19.68%
4.	Failure report signed only - no evidence of checking by principal	661	65.38%
5.	Pupil left	18	1.78%
6.	Pupil suspended	5	.49%
7.	Pupil transferred to vocational school	7	.69%
8.	Pupil transferred to Parental School	3	.29%
9.	Indifferent Parent Petition filed for pupil	1	
10.	Pupil sent to Arden Shore Rest Camp	1	

Table X and Table XI were prepared by William Abrams, Principal of Gage Park High School, in his efforts to ascertain the problems at Gage Park High School regarding prevention of failures which the teacher could not solve, Table X representing teachers' opinions as to causes of failure.

TEACHERS' OPINIONS AS TO CAUSES OF FAILURE*

Subject	Eng.	Math.	For. Lang.	Sci.	Soc. Sci.	Com.	Art	Mus.	Phys. Ed.	Ind. Arts	Home Ec.	Total
Teachers in Department	13	4	7	12	3	9	3	2	4	5	5	67
Excessive Absences	8	2	6	10	2	5	1		1	3	3	41
Lack of effort		1	2			2				1		6
Failure of Parents to Cooperate	5	1	3	5	1	3	2		2			22
Failure to Master Previous Work		2				1						3
"Marking Time" until Sixteenth Birthday	1			2								3
Poor Textbooks					2							2
Indifferent Attitude of Student	1		1	1			1					4
Inadequate Study Rooms	1					1						2
Poor reading habits	1					2						5
Classes too large								2				2
Lack of Sufficient Adjustment Time				1								1
Dislike for Swimming									2			2
Poor Study Habits	1					1						2
No Problems												7

*Prepared by William Abrams, Principal, Gage Park High School.

Table XI is a comparison of District Three with Gage Park High School a school of that district.

TABLE XI
FAILURE DATA

The median failure rate of schools in District Three, and the failure rate of Gage Park High School are as follows:

Department	Median	Per Cent of Failure Gage Park
1. Physical Education		
Boys	4.71	9.90
Girls	2.46	1.90
2. Mathematics	2.41	0.66
3. Foreign Languages	2.25	1.01
4. Science	1.85	1.01
5. Commercial	1.77	0.58
6. English	1.73	0.46
7. Shops	1.69	0.00
8. History	1.19	1.19
9. Home Economics	1.11	0.79
10. Social Studies	0.87	0.00
11. Music	0.57	0.13
12. Art	0.54	0.35

With similar campaigns in the other three high school districts the percentage of failures in Chicago Public High Schools has been reduced to only 2.3 per cent of the total enrollment as a result of the anti-failure campaign.

Evaluation of subject grades. A letter system of marking

is used at Gage Park High School. The letters and their significance follows: S, E, G, F, and D, indicating a quality of work of superior, excellent, average, unsatisfactory, and failure, respectively. For the purposes of this study the following numerical values were assigned to the various letters:

S	5
E	4
G	3
F	2
D	1

It was not possible to transmute the letter grades into sigma scores as only the grades and not the names of the teachers giving the grades were available. Ordinarily, this would have been desirable especially since the particular grades assigned by different teachers are probably not equivalent. However, in this study, the interest is in comparing the achievement of two groups, namely, parochial and public school pupils. Since the pupils of these groups were randomly assigned to the various classes it is justifiable to assume that approximately as many from each group were placed in the classes of teachers who were severe in grading as were placed in classes of teachers who were lenient in grading.

Evaluation of ratings on traits. The pupils are rated on the traits: courtesy, dependability, leadership, and service, by each subject teacher once each semester. A rather rough scale

of three degrees, namely, above average, average, and below average is used. In this study a value of three is given to superior, two to average, and one to inferior. A pupil's total rating score, therefore, ranged from a minimum of twenty to a maximum of sixty points when one of these values is assigned to each of four traits by each of his five teachers. This procedure gives a total trait rating scale extending from twenty to sixty. No assumption is made that the units of the scale are in any sense equal. Consequently, a statement to the effect that a pupil with sixty points is three times better than a pupil with twenty points would not be justified. However, this method of evaluating the teachers' ratings did furnish a means of determining whether any difference in trait scores, between private and public school pupils, was statistically significant or was merely a chance difference that might normally be expected in groups of the size being studied. This study furnishes a means of determining the statistical significance of a difference between the groups.

Sampling difficulties. Although achievement is related to reading ability it was not feasible to match the students on an additional factor as the number of pairs would have been appreciably lowered. Ordinarily such a matching might have been possible but with the subjects of this study the difficulty was greatly increased by the fact, to be presented later, that the

parochial school pupils were found to be slightly superior to the public school pupils in reading ability when they were matched on the basis of intelligence quotient.

It seemed advisable for this study to make a separate comparative study of the boys from that for the girls in order that sex differences might be noted as sex differences in achievement were suspected. It is always possible to combine the results of sub-groups to obtain the total results.

Accuracy in selecting data. Table XII shows how well the groups are matched. In every case the difference in means between the matched groups is considerably less than the standard errors. Hence, any difference in means between the matched groups is a difference that might be expected in samples of the size of this kind. Although the boys, girls, and the totals of the groups are respectively matched with great accuracy, yet in each particular group the difference in means between the boys and the girls is considerable. However, this difference is in no way involved in this study as comparisons between boys and girls within a group are not made.

TABLE XII

MEANS, STANDARD DEVIATIONS, AND STANDARD ERRORS OF INTELLIGENCE QUOTIENTS OF MATCHED GROUPS

GROUP	Boys		Girls		Total	
	Mean	SD	Mean	SD	Mean	SD
Parochial	92.82 \pm .83	10.46	95.76 \pm 1.4	15.3	94.3 \pm .83	13.1
Public	92.856 \pm .82	10.25	95.05 \pm 1.3	14.7	94.0 \pm .79	12.5

Measures of achievement. The final measures of achievement used as criteria were the first and second semester grades in English, General Science, Physical Education, and Trait Ratings. These subjects were selected because they are core subjects required of all students. The work might have been considerably reduced by using the average grade for the year in each subject instead of studying the results of each semester separately but this procedure might have defeated the purpose of the study. For it is possible that students who are not well adjusted for the work of the first semester might be considerably improved in this respect as the work of the year progressed and as a result they might do much better work in the second semester. This was just the type of evidence with which this study is concerned.

Definitions and formulae. As all of the criterion measures were correlated with intelligence quotient, the amount of this correlation was found for each group on each criterion measure by means of the formula:

$$r = \frac{\sum xy}{N \bar{x} \bar{y}} = \frac{\frac{\sum xY}{N} - \bar{X} \bar{Y}}{\sqrt{\frac{\sum x^2}{N} - \bar{X}^2} \sqrt{\frac{\sum Y^2}{N} - \bar{Y}^2}}$$

r = the coefficient of correlation

x and y = deviations from the mean

X and Y = raw scores

\bar{X} and \bar{Y} = mean scores in X and Y

n = number of pupils

$$\frac{\sum X}{N} = \bar{X} \text{ and } \frac{\sum Y}{N} = \bar{Y} \quad \text{mean scores in X and Y}$$

\hat{x} and \hat{y} = the sigma of deviations from respective means

The "t" statistic. The ratio, known as the "t" statistic was used to determine the significance of a difference in means on the criterion scores. This measure was devised by an English statistician writing under the pen name of "Student".

"t" - Difference in Means

$$\frac{\sqrt{\sum d^2}}{n(n-1)}$$

d = the deviation of an individual measure from the means of the group

n = the number of cases in the group

The significance of the value of "t" is determined from the "t" table in the Appendix of "Statistical Methods for Research Workers", by R. A. Fisher. The above formula for the evaluation of the significance of a difference in the means of related measures is taken from Lindquist.¹

As pointed out in Jordan's study achievement in school subjects such as English and General Science is positively correlated with intelligence. Individuals of high intelligence are

¹ E. F. Lindquist, Statistical Analysis in Educational Research, (Boston, Mass.: Houghton Mifflin Company, 1940) pp. 58-60.

usually found to make high grades in English whereas individuals of low intelligence usually receive low grades when such individuals are in the same class. Mathematically such a relation is called a functional relation since a change in one variable results in a change in another variable. A functional relation may be expressed mathematically by an algebraic equation or graphically by a curve. When the graph of a functional relationship is a straight line and there is a normal distribution of the measures it has been found that the "method of the least squares" will give the line of best fit. Any straight line can be expressed by the relation:

$$Y = a + bX$$

In this equation a and b are constants and X and Y are the raw score variables. The constants for any group of raw scores may be determined by the following formulae:²

$$b = \frac{\sum (XY) - N\bar{X}\bar{Y}}{\sum (X^2) - N(\bar{X})^2} \quad a = \bar{Y} - b\bar{X}$$

\bar{X} and \bar{Y} are the raw score means of X and Y scores. In using these formulae the value of " b " is first determined and then the value of " a " is found. The constant " a " merely serves to locate the height of the graph at the point where it has meaning. The constant " b " shows the difference in Y for every

² Ezekiel Mordecai, *Methods of Correlation Analysis*, (New York: John Wiley and Company, 1940) pp. 57-60.

difference of one unit in X.

The regression equation or the method of least squares is often used for the purpose of predicting the most likely score in one variable when the other variable is known. In this study it furnishes a means of saying what grade a student should have received, other things being equal, for his known intelligence quotient. The regression equation is determined by the achievement of the group as a whole when the intelligence quotient is kept constant. By means of this equation the probable achievement of any individual can be estimated on the basis of what the group as a whole did. Since the regression equation is based on group averages many individuals will be found who greatly exceed the estimate from the equation and others will be found who for a given intelligence obtain grades considerably below the estimated grades. This study is concerned with the number of individuals from parochial and public schools who fall in this latter group.

Using the data from the master tables this project will make a study of the results in Reading, English, General Science, Physical Education, and Traits. It will seek to find significant differences between the two elementary school systems under statistical research.

Comparative results on data. Strength of groups in reading. It was previously pointed out that it is rarely practicable

to match students on more than one or two initial measures as such a procedure results in the loss of a considerable number of the subjects or it results in a very rough matching. However, in this study there was an additional reason for not matching the students on their reading scores. Table XIII shows the relative strength of the various groups in reading.

TABLE XIII

MEAN READING GRADE LEVELS AND THEIR RELATIVE SIGNIFICANCE

Sex	Number	Mean Grades		Difference in Mean Grades	d^2	Value "t"
		Parochial	Public			
Boys	125	8.71	8.214	.496	312	3.49
Girls	125	9.78	8.66	1.120	455	6.52
Total	250	9.24	8.437	.803	767	7.297

Significance of grade levels. Fisher's tables show that in the case of the boys "t" would be expected to have a value of 3.49 in less than 1 per cent of all random cases. In the case of the girls "t" would be expected to have a value of 6.52 in less than 1 per cent of all random samples. When the total groups of boys and girls are considered the value of "t" in favor of the parochial schools is exceeded in less than 1 per cent of the time. In fact Fisher's tables gives the value of "t" at the 1 per cent level as 2.57582. It is evident, from the difference in mean grades that, as a group, the private school pupils are superior

to the public school pupils in reading ability as measured by the Iowa and Chicago Reading Tests, the girls being considerably better than the boys of their respective groups. It must be kept in mind that these are differences between paired groups matched on the basis of mental age and chronological age and are based on 250 pairs of students. With such evident superiority for groups so large the results are decisive. The reading results in favor of the parochial school pupils are definitely significant.

Results in English. The course of study in freshmen English in Gage Park High School covers a review of grammar, punctuation, spelling of common but difficult words, use of library and books, fundamentals of composition and literature. About one-half of the entire time is devoted to the latter subject. Much of the varied material of this course was previously encountered in the elementary school. The extent to which it was then learned would depend on many factors but considerable variation might be expected over and above the usual pupil variation found in classes where all pupils have covered the same content. Since the pupils of Gage Park High School have enrolled from a variety of elementary schools their variability in background in the above might be expected to be considerable. How does the achievement of pupils from parochial schools compare with that of the pupils from the public elementary schools as measured by the first and second semester marks of teachers? Was the achievement of either group significantly different for

either semester? Are there significant sex differences? The first semester results in English are presented in Table XIV.

TABLE XIV
MEAN FIRST SEMESTER IN ENGLISH AND
THEIR RELATIVE SIGNIFICANCE

Sex	Number	Mean Grades Parochial	Public	Differences in Mean Grades	d ²	Value "t"
Boys	125	2.64	2.70	*-.14	99.28	*1.75
Girls	125	3.27	3.04	.23	130.76	2.52
Total	250	2.96	2.87	.09	230.04	1.48

* The difference in mean grades favors the public school pupils.

Significant Differences in Achievement. The "t" value of 1.48 for the difference .09 between all of the parochial and the public school pupils would be likely to occur fifteen times in a hundred and is therefore not significant. Even the difference of .14 is not really significant as this could occur, by chance, eight times in a hundred. However, the "t" value, of 2.52 favoring the parochial school girls would occur only about two times in a hundred in random samples and is therefore quite significant. There is a significant sex difference in favor of the parochial school girls. The difference between the combined grades of the parochial and the public school groups is less significant and would be likely to occur about fifteen times in a hundred.

The public school boys are slightly superior to the parochial school boys in English and the parochial school girls are considerably superior to the public school girls. The difference for the entire group favors the parochial school pupils particularly the girls.

The results of the second semester grades in English are presented in Table XV.

TABLE XV

MEAN SECOND SEMESTER GRADES IN ENGLISH
AND THEIR RELATIVE SIGNIFICANCE

Sex	Number	Mean Grades Parochial	Public	Differences in Mean Grades	d^2	Value "t"
Boys	125	2.75	2.83	.08	89.23	1.059
Girls	125	3.33	3.33	.00	-----	0.000
Total	250	3.04	3.08	.04	169.41	.769

Differences in second semester grades. The "t" values for the second semester differences are even less significant than those of the first semester. The girls from the public schools have wiped out the large differences that were evident for the first semester. The relative superiority of the girls' grades over that of the boys during the first semester showed very little change.

Relation of English to intelligence quotient. Additional

information can be obtained by a study of the relation of grades in English to intelligence quotients. Figure 5 shows the graph of the equation of least-squares in black and the slightly irregular red line obtained by grouping the grades. The red-line graph shows that a straight line linear equation $Y = a+bX$ represents the relation of grades to intelligence fairly well for the range of data of this study.

X	X^2	XY	Y	Y- Grade in English
47062	4513545	139111	1457	X= Intelligence quotient

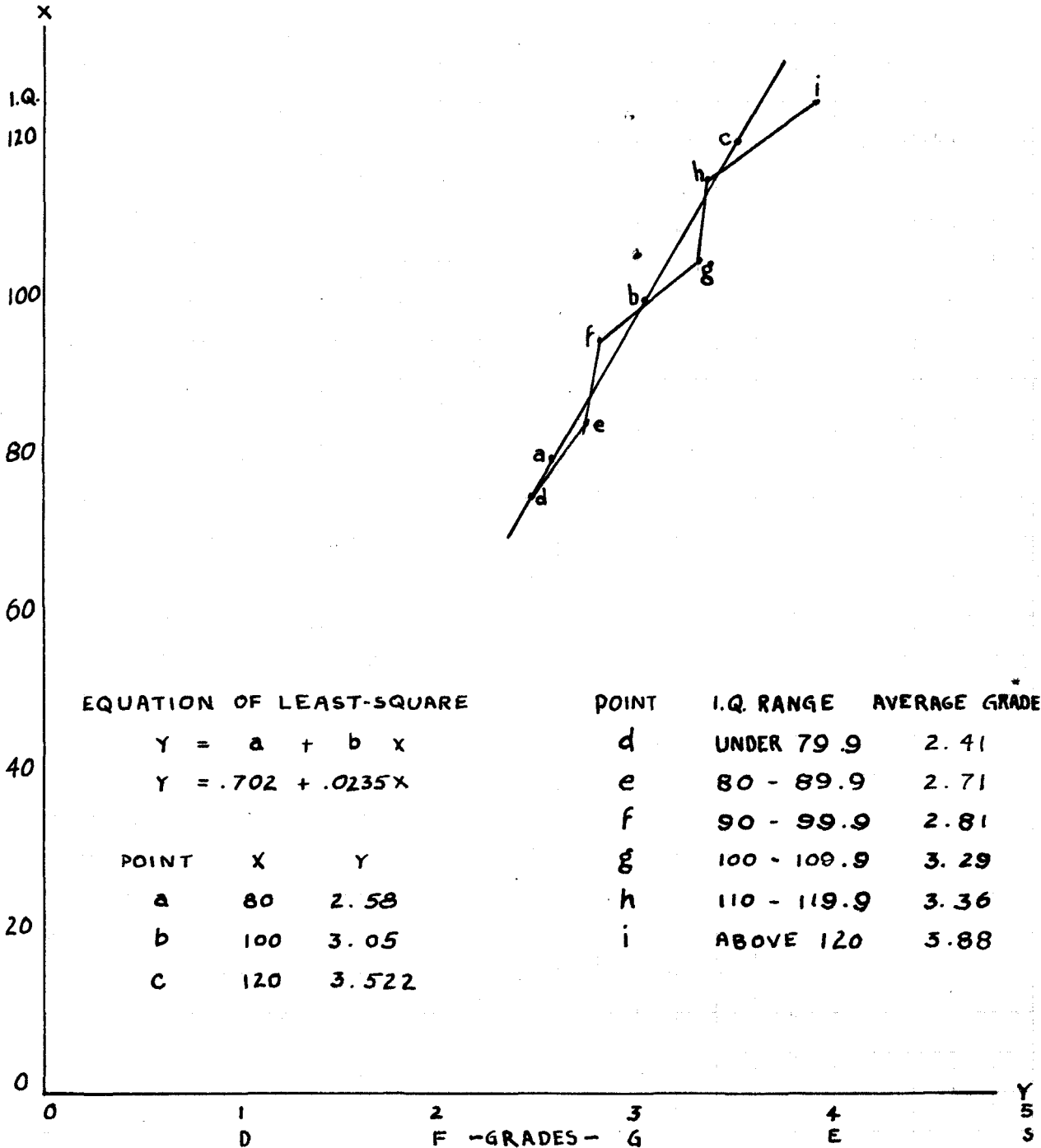
The actual value based on grouped grades and the theoretical value based on the equation $Y = a+bX$ are shown in Table XVI.

TABLE XVI
THE RELATION OF ACTUAL AND THEORETICAL VALUES

Grade	Ave. X	Actual Average Value of Y	Theoretical Value Y
Above 120	125	3.88	3.62
110-119.9	115	3.36	3.41
100-109.9	105	3.29	3.17
90-99.9	95	2.81	2.93
80-89.9	85	2.71	2.70
Below 80	75	2.41	2.46

It is apparent from the above table that the theoretical values of Y may be found quite accurately if the intelligence

FIGURE 5
RELATION OF INTELLIGENCE QUOTIENT TO GRADES
IN ENGLISH FOR 500 STUDENTS



LEGEND

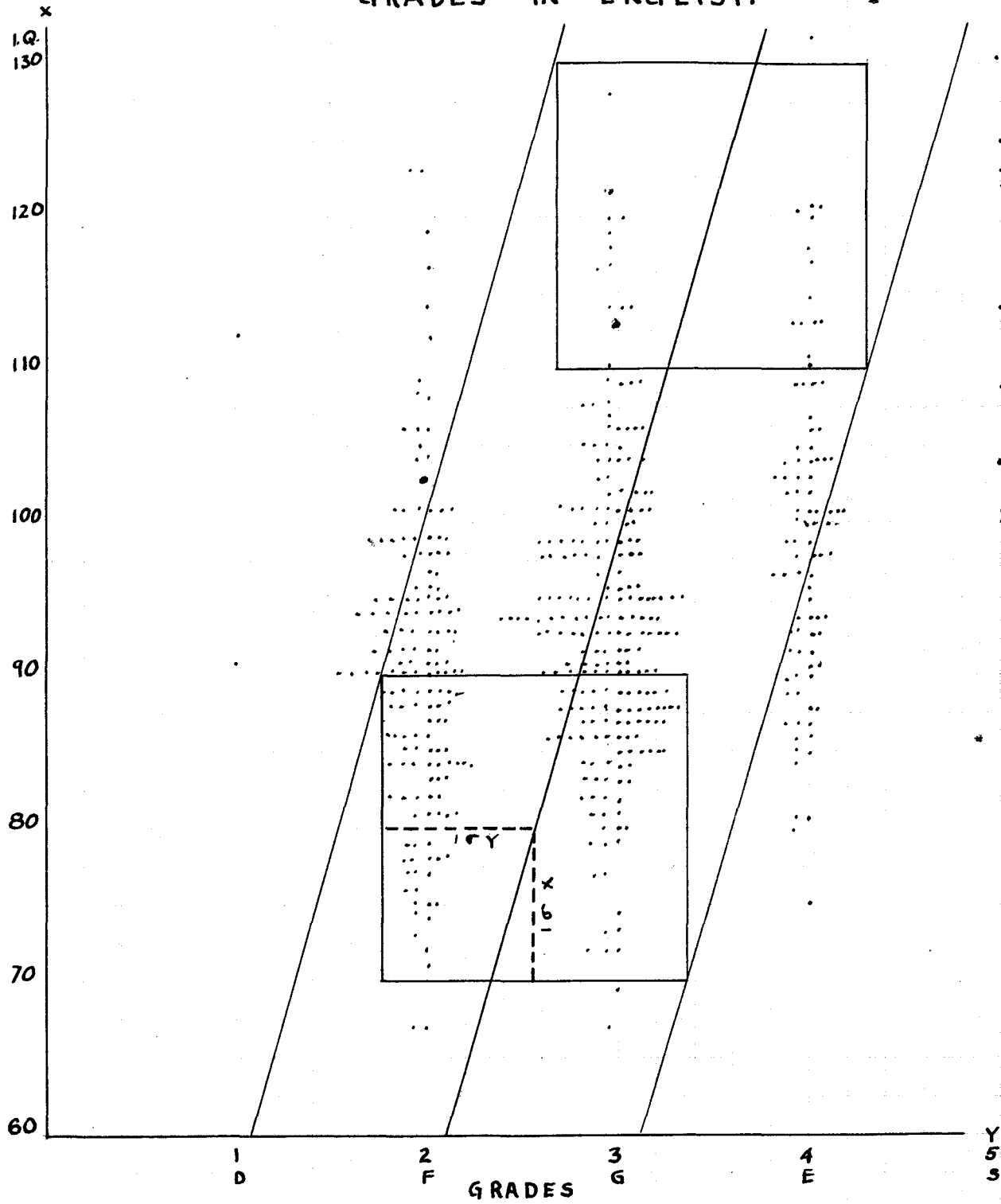
- RANGES AROUND GROUP AVERAGE
- LEAST SQUARE STRAIGHT LINE

quotient is given. However, many individuals will receive grades that vary from the predicted values. This procedure furnishes a means of determining the number of students from the private and the public schools who received grades different from what might have been expected from their intelligence quotient. Figure 6 represents the situation. The center black line was determined by the least-square equation. The two rectangles represent 1 sigma of deviation in intelligence quotient and grade above and below the graph of the least-square equation. It would, therefore, be expected that most of the pupils would fall in the area between the two red lines. Students represented by dots to the right of this inside area have scored grades of either S or E. (The grades at Gage Park High School are:

- S Superior
- E Excellent
- G Average
- F Unsatisfactory
- D Failure)

The figure shows that no pupil with an intelligence quotient below 100 received an S grade. Ten pupils from parochial schools received a grade of S in English while only five from public schools received such a grade. We might arbitrarily, but with justification, say that students below 100 intelligence quotient who have received a grade of E have achieved a higher grade than might have been expected of them on the basis of

FIGURE 6
RELATION OF I.Q. TO FIRST SEMESTER
GRADES IN ENGLISH



LEGEND
 ... PAROCHIAL
 ... PUBLIC

LEGEND
 $.81Y$
 $16X = 10.46$

their intelligence quotient. There are twenty parochial school pupils in this group and sixteen public school pupils. In the upper left hand side of the figure are the pupils who have received low grades for their intelligence quotients. The results of the least-square equation would certainly justify the expectation that any student of this group with an intelligence quotient above 100 should receive a grade of G or better.

Figure 6 shows that twenty-one students had intelligence quotients above 100 and grades that were unsatisfactory or failure. Nine of these are from parochial schools and twelve are from public schools. Certainly, these twenty-one students might be considered as not having satisfactorily adjusted themselves to their school work in English. Here, again, such differences as exist, both in respect to pupils of superior achievement and those of unsatisfactory achievement, favors the parochial school group.

Ordinarily it would be preferable to use mental age instead of intelligence quotient for the purpose of predicting expected achievement. However, since the pupils were paired on the basis of mental age and chronological age and the chronological age range for pupils in the freshmen year is relatively small the procedure here used is justified for comparison of the two groups.

The study also furnished a means of determining the relation between grades in English and intelligence quotients in

terms of coefficients of correlation. Jordan³ found a correlation of .391 to .428 between marks in English and scores on various intelligence tests. The results from this study are presented in Table XVII.

TABLE XVII
CORRELATION OF ENGLISH MARKS WITH INTELLIGENCE QUOTIENTS

School	Sex	Semester	Sigma X	Sigma Y	Correlation (r)
Parochial	Boys	1st	10.2	.707	.29
		2nd	10.2	.755	.225
	Girls	1st	15.3	.85	.563
		2nd	15.3	.721	.30
Public	Boys	1st	10.46	.73	.36
		2nd	10.46	.82	.519
	Girls	1st	14.7	.804	.57
		2nd	14.7	.88	.246

Summary. It is quite unlikely that the pupils changed in one semester sufficiently to result in such large variations in the correlations between intelligence quotients and teachers' grades. If the teachers had made use of some standardized English tests as aids in assigning grades it is probable that the variations in correlation between English grades and intelligence quotient would have been considerably less. Of course, in English, the mark of a student does depend upon the making of cer-

³ A. M. Jordan, "Correlations of Four Intelligence Tests with Grades," Journal of Educational Psychology, Vol. 13, (October, 1929), pp. 419-429.

tain assigned readings and the writings of themes. It is conceivable that a student's grade has varied, not because of considerable change in knowledge of English, but because of failure in certain definite assignments. The real cause of variability in the correlations is uncertain but it seems likely to be due to lack of use of valid measures of English ability.

Results in General Science, the course of study. At Gage Park High School the general science students have the opportunity to work in fully equipped science laboratories. Every device is offered for natural curiosity-seeking, intelligent understanding and interpretation of the phenomena of nature. In this course of study the units of General Science offer activities for the development of adolescent interests. In science mental powers are developed by working out the laboratory problems and evaluating the results; and sensibilities are quickened as projects are evolved by group cooperation.

Differences in Science grades. Table XVIII shows the relative significance of the differences in means of the grades in General Science. The "t" value for boys favoring public school pupils is 1.467 which is considerably less than 1.960 the "t" value at the 5 per cent level. Actually a "t" value of 1.467 might on the basis of chance be expected to occur about fifteen times in a hundred. The "t" value of .566 favoring parochial school pupils is still less significant and should be

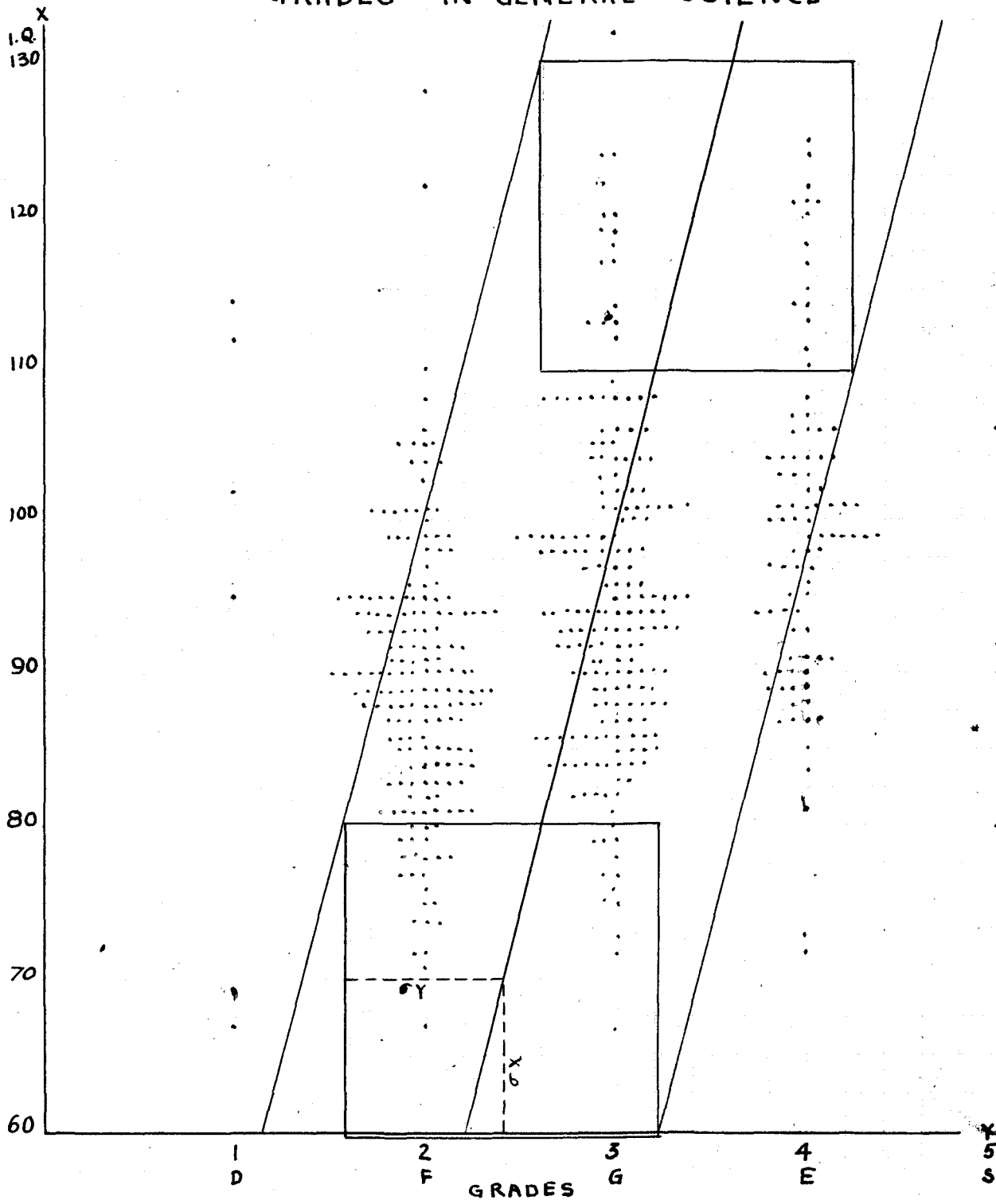
expected for groups of this size about fifty-eight times in a hundred. The "t" value of .561 would be expected to occur fifty-eight times out of a hundred. The slight difference found in General Science favors the public school boys and the parochial school girls. Figure 7 shows that nine public school students and six parochial school pupils received a grade of S in General Science. Only one public school pupil was given a failure mark of F while five parochial school pupils received such a grade. Certainly the achievement of four of these latter was considerably below what might have been expected of them. If an arbitrary standard of satisfactory work or better for students with an intelligence quotient above 100 be set then thirteen parochial students and fifteen public school students did a quantity of work that was unsatisfactory. From the standpoint of grades there is little difference between the groups. This seems particularly significant in view of the fact that parochial school pupils have considerably less science in the elementary school than public school pupils.

TABLE XVIII

MEAN FIRST SEMESTER GENERAL SCIENCE GRADES
AND THEIR RELATIVE SIGNIFICANCE

Sex	Number	Mean Grades		Differences in Mean Grades	d^2	Value "t"
		Parochial	Public			
Boys	125	2.67	2.81	*.14	140	*1.467
Girls	125	2.97	2.91	.06	175.5	.566
Total	250	2.82	2.86	*.04	315.5	.561

FIGURE 7
RELATION OF I.Q. TO FIRST SEMESTER
GRADES IN GENERAL SCIENCE



LEGEND
 ... PAROCHIAL
 ... PUBLIC

LEGEND
 $\sigma_X = 10.46$
 $\sigma_Y = .82$

Jordan⁴ found correlations between intelligence test scores and grades in science ranging from .407 to .508. Table XIX shows the correlations between intelligence quotients and Science Grades to range from .327 to .465. This indicates considerable variability in the grades of the science teachers. But since the pupils were usually not taught by the same teacher in each semester the variability is not greater than might be expected.

TABLE XIX

CORRELATION OF GENERAL SCIENCE GRADES
WITH INTELLIGENCE QUOTIENTS

School	Sex	Semester	Sigma X	Sigma Y	Correlation (r)
Parochial	Boys	1st	.76	10.25	.396
		2nd	.775	10.25	.423
	Girls	1st	.797	15.30	.327
		2nd	.878	15.30	.418
Public	Boys	1st	.808	10.46	.329
		2nd	.975	10.46	.342
	Girls	1st	.900	14.70	.385
		2nd	.837	14.70	.465

Physical Education - Results in course of study. In the public elementary schools the course of study is adapted to suit the particular needs and problems of the community in which it is located. Cleanliness; proper diet, rest, and exercise; and

⁴ A. M. Jordan, Op. Cit., pp. 419-429.

adequate dental care are stressed by all. A more comprehensive program of health education is presented in the public high schools through the correlation of physical education and health. The physical education teacher gives lessons on health, makes physical measurements, such as periodic weighing and measuring of the students, and suggests remedial measures for those children whose physical health is below normal. The work in the gymnasium, and the organized play have been devised to develop vigorous bodies and to teach students games which are popular and suitable for their leisure time. Youth thus acquires a knowledge of health rules, habits of cleanliness, eating, sleeping and play which will later help them to maintain a high degree of physical efficiency, in adult life.

TABLE XX

MEAN FIRST SEMESTER PHYSICAL EDUCATION GRADES
AND THEIR RELATIVE SIGNIFICANCE

Sex	Number	Mean Grades		Differences in	d^2	Value
		Parochial	Public	Mean Grades		"t"
Boys	125	3.36	3.580	*.220	312	*1.551
Girls	125	3.04	3.010	.030	192	.270
Total	250	3.20	3.295	*.095	504	*1.059

*The difference favors public school pupils

Significant differences of achievement. Table XX presents the relative significance of the means grades in Physical

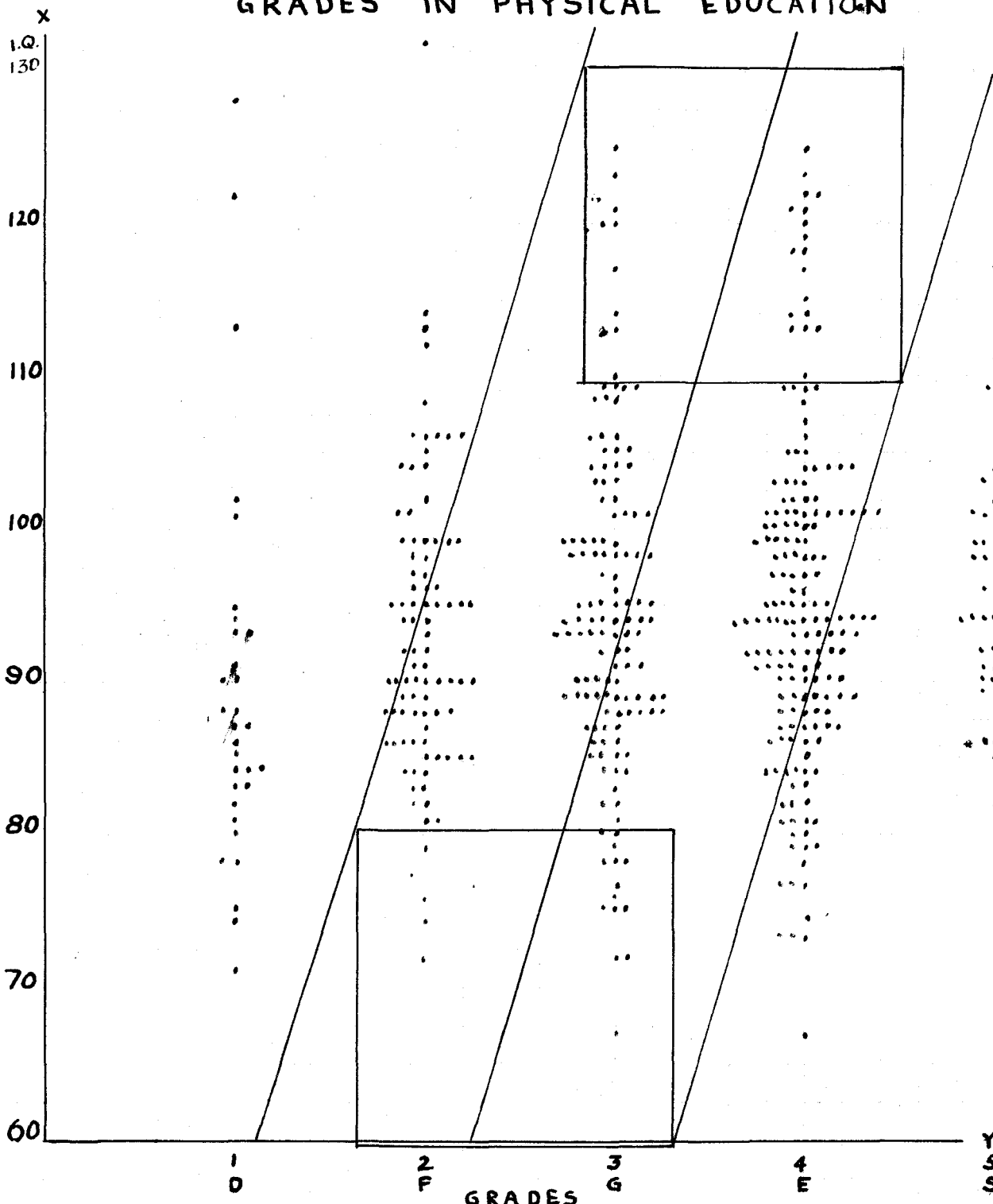
Education. The public school boys are slightly superior to parochial school boys but the difference is not significant as a "t" value of 1.551 on the basis of chance might be expected to occur about fifteen times in a hundred. The difference in means between the girls is even less significant. However, Figure 8 shows that twenty parochial school students received failure grades in Physical Education while only eleven public school pupils received such grades and only twenty-two parochial school pupils received superior grades as compared with thirty-three public school pupils. This indicates a superiority in favor of the public school pupils. This might be expected since in the public elementary school considerably more attention is given to Physical Education. The Parochial School children seem to be handicapped in this respect when they enter a public high school.

TABLE XXI

CORRELATION OF PHYSICAL EDUCATION GRADES
WITH INTELLIGENCE QUOTIENTS

School	Sex	Semester	Sigma X	Sigma Y	Correlation (r)
Parochial	Boys	1st	1.070	10.25	.334
		2nd	.913	10.25	.150
	Girls	1st	.982	15.30	.135
		2nd	1.025	15.30	.106
Public	Boys	1st	1.160	10.46	.269
		2nd	.993	10.46	.327
	Girls	1st	.936	14.70	.081
		2nd	.990	14.70	.180

FIGURE 8
RELATION OF I.Q. TO FIRST SEMESTER
GRADES IN PHYSICAL EDUCATION



LEGEND
... PAROCHIAL
... PUBLIC

LEGEND
 $\sigma_X = 10.46$
 $\sigma_Y = 1.18$

Table XXI shows large variations in the correlations between intelligence quotient and teachers grades in Physical Education. These correlations are all positive and range from .08 to .334. The correlations are higher for boys than for girls. The variation in correlations between the first and the second semesters are considerable and suggests the lack of suitable grading criteria. This variation is most pronounced in the case of parochial school pupils. While the correlations between intelligence quotient and Physical Education grades might be expected to be lower than in academic subjects they might be expected to be consistently low if definite scientific criteria for grading were employed.

Results in trait ratings. All Chicago high school subject and division teachers are required to mark students once a semester in the following traits: leadership, service, courtesy, dependability. It is felt in rating these four fundamental and important characteristics are better than rating merely in behavior and conduct.

Rating is an aid to administration. Symonds⁵ says "Although ratings are imperfect, as will be subsequently shown, nevertheless an administration is able to make less subjective decision because ratings are a means of getting important

⁵ Percival Symonds, Diagnosing Personality and Conduct, (New York: Century Company, 1932), pp. 41-45.

information that often can be gained in no other way. Without a rating method one is inclined to give an opinion concerning a person which is no more than a general impression. Ratings are a recognized method of getting data for research purposes.

Ratings should be made to yield quantitative scores by transmuting them into graphic scores since research demands that ratings should be in the form of objective record."

TABLE XXII

MEAN FIRST SEMESTER TRAIT RATINGS AND
THEIR RELATIVE SIGNIFICANCE

Sex	Number	Mean Grades		Differences in Mean Grades	d^2	Value "t"
		Parochial	Public			
Boys	125	41.34	41.79	*.45	3985	*.887
Girls	125	44.38	43.98	.40	4012	.786
Total	250	42.86	42.885	*.025	7997	*.0715*

*The difference favors public school pupils

Significant differences. Table XXII shows the relative significance of the differences between the mean Trait Ratings of the two groups. A difference of .45 in the case of the boys giving a "t" value of .887 would on the basis of chance be expected to occur about thirty-seven times in a hundred and is, therefore, insignificant. The other differences are even less significant.

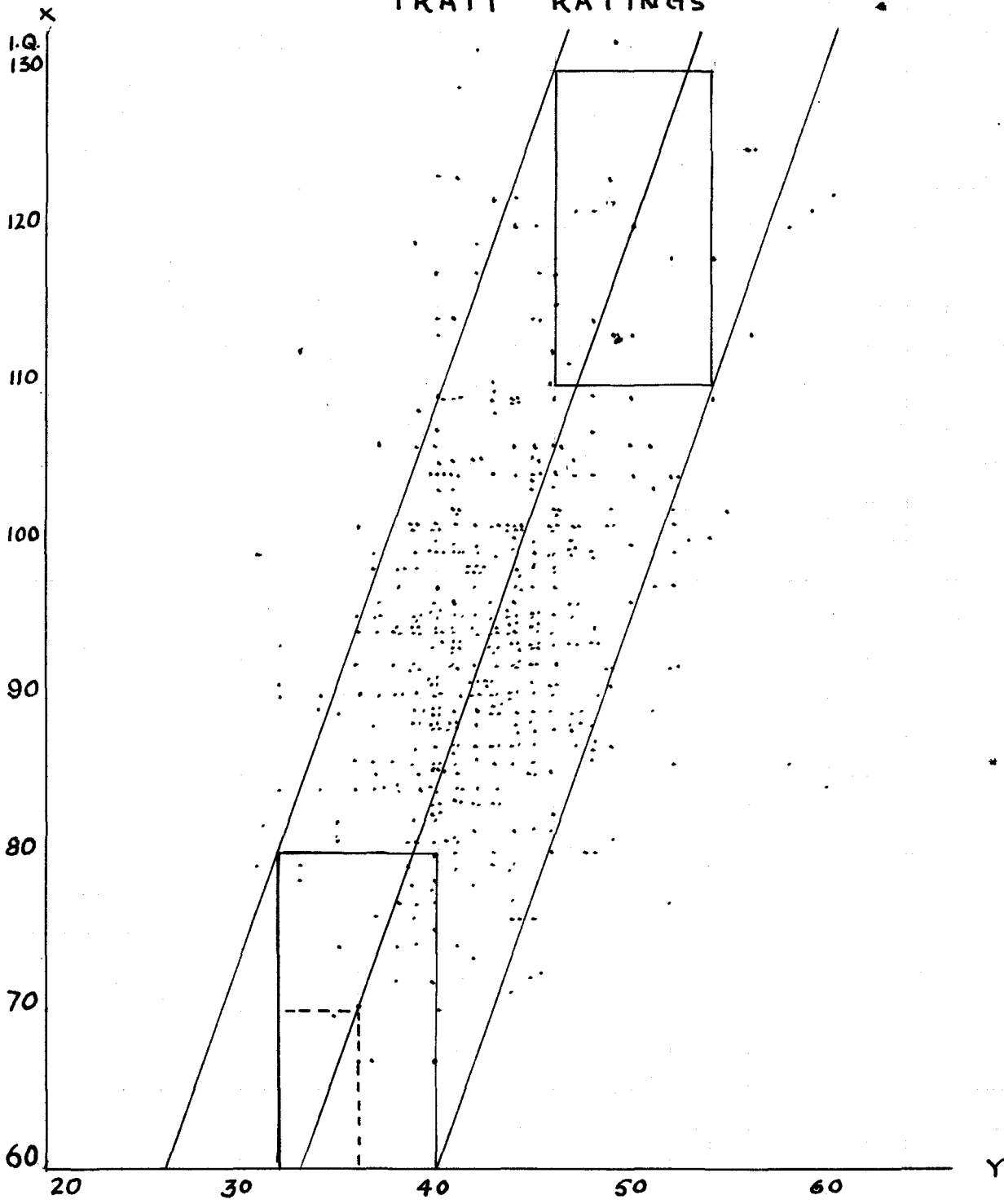
It was pointed out previously in the chapter on related

literature that there is a correlation between intelligence quotient and teachers' ratings on personality traits. In this study the correlations range from .18 to .43. The correlations established in previous studies are here confirmed.

Relation of grades in trait rating to intelligence quotient. Although no significant differences in means were found between the two groups, Figure 9 indicates that many more individuals of low intelligence quotient from public schools have received high trait ratings than have pupils from parochial schools and on the other hand more pupils of high intelligence quotient from the public schools have received low trait ratings. This would indicate that pupils of low intelligence quotient from the public schools in their efforts, satisfy the Gage Park High School teachers better than do the pupils of high intelligence quotient. Whereas, the parochial school pupils, whether of high or of low intelligence quotient, are nearer the central tendency and on the whole show less of a tendency to be rated very high or very low.

Table XXIII shows the SD values of the trait ratings to be greatest in the second semester for both public school boys and girls, indicating that the longer they have been in high school the more pronounced their variability becomes. The cause for this increase in variability might be attributed to environmental factors combined with certain physical changes taking place in them at this adolescent period of their lives. Figure

FIGURE 9
RELATION OF I.Q. TO FIRST SEMESTER
TRAIT RATINGS



LEGEND
... PAROCHIAL
... PUBLIC

LEGEND
 $\sigma_X = 10.46$
 $\sigma_Y = 4.1$

shows that parochial school pupils are more homogeneous in trait ratings and that the public school pupils have on the whole received higher and lower trait ratings.

TABLE XXIII
CORRELATION OF TRAIT RATINGS WITH INTELLIGENCE QUOTIENTS

School	Sex	Semester	Sigma X	Sigma Y	Correlation (r)
Parochial	Boys	1st	4.56	10.25	.415
		2nd	4.75	10.25	.180
	Girls	1st	4.07	15.30	.430
		2nd	5.93	15.30	.208
Public	Boys	1st	3.57	10.46	.205
		2nd	5.16	10.46	.280
	Girls	1st	4.16	14.70	.29
		2nd	6.89	14.70	.42

Summary. In view of the large variation in correlations between intelligence quotient and trait ratings it is quite probably due to variation in teachers' trait ratings and not to marked variation in the pupils. In other words the trait rating scales lack validity because the scales are indefinite. No definite criteria have been set up as guides for the teachers in rating the pupils.

CHAPTER V

SUMMARY AND SUGGESTIONS

Findings in English. The study shows that there is a marked superiority on the part of parochial school pupils in reading ability. Evidence is not available as to the reason for this superiority. It may be due to a difference in methods of teaching, or to a greater amount of time spent on this subject. It may, possibly, be attributed to a difference in emphasis on this subject which in turn depends on a difference in viewpoint as to the standards of reading achievement deemed essential for life.

The parochial school girls are superior to the public school girls in English while there is a slight superiority of public school boys over parochial school boys. In general the differences in English favor the parochial school pupils. These differences would probably be accentuated if the teachers had used some standardized tests in English as a partial basis for arriving at the grades assigned.

Findings in General Science. In General Science the slight difference in favor of public school pupils might have been expected as the latter devoted more time to this subject in elementary school than the former. The science teachers also

seem to give more consistent grades than the English teachers.

Findings in Physical Education. The results in Physical Education are slightly in favor of the public school pupils. The difference is not significant and might be expected since greater emphasis is placed on it in the public elementary school. Although the difference is not enough to say that pupils from parochial schools are not prepared to follow the course in Physical Education yet they do seem to be slightly handicapped. The large variation in teachers' grades suggests the adoption of more definite criteria for assigning grades in Physical Education.

Findings in trait ratings. The smallest differences between the groups are in the teachers' ratings for leadership, dependability, service, and courtesy. The great variability in teachers' ratings indicate a lack of definite criteria on which to base the ratings.

Findings in leisure time activities. There seems to be no difference between the two groups in leisure time activities: hobbies; use of library books; type of books read; frequency of attendance at movies; type of radio program listened to and recreational interests. This might also be expected as nearly all of the public school children are of the same religion and of similar environment as the parochial school children.

Suggestions. In view of these findings it is suggested

that:

1. The parochial elementary schools give over a portion of the time now devoted to English, to the study of simple science problems.
2. The parochial elementary schools offer better facilities in physical education to students of the seventh and eighth grades
3. The public high schools use each semester some standard English test result as an aid in determining the final semester grade
4. The public high schools develop more reliable and valid criteria for grading physical education
5. The public high school teachers, during teacher's meetings, discuss and determine more definite scales for guides in giving grades in trait ratings
6. The public and parochial schools give direct guidance in discriminating selection of movie and radio programs.

Conclusion. In conclusion this study finds that the parochial and public school children who enroll at Gage Park High School seem equally well prepared to do successful school work. While there are differences between the groups these differences are not such as appear in any way to be a serious handicap for either group. Students who fail to adjust themselves to the situation in which they find themselves on entering Gage Park

High School seem to do so for reasons other than could be attributed to the preparation received in the elementary school attended.

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A P P E N D I X

CONTRIBUTING PUBLIC ELEMENTARY SCHOOLS

- | | | |
|-----|---------------|------------------------------|
| 1. | Christopher | 5100 South Artesian Avenue |
| 2. | Fulton | 5300 South Hermitage Avenue |
| 3. | Gage Park | 5516 South Maplewood Avenue |
| 4. | Hamline | 4747 South Bishop Street |
| 5. | Hedges | 4735 South Winchester Avenue |
| 6. | Libby | 5300 South Loomis Avenue |
| 7. | Morrill | 6011 South Rockwell Street |
| 8. | Nightingale | 5250 South Rockwell Street |
| 9. | Pasteur | 5825 South Kostner Avenue |
| 10. | Peck | 3826 West 58th Street |
| 11. | Sawyer Avenue | 5248 South Sawyer Avenue |
| 12. | Seward | 4600 South Hermitage Avenue |
| 13. | Sherman | 5116 South Morgan Street |
| 14. | Tonti | 5815 South Homan Avenue |

CONTRIBUTING PAROCHIAL SCHOOLS

- | | | |
|----|-----------------|---------------------------|
| 1. | St. John of God | 5129 South Throop Street |
| 2. | St. Joseph | 4818 South Paulina Street |
| 3. | St. Gall | 5514 South Kedzie Avenue |
| 4. | St. Clares | 2625 West 55th Street |
| 5. | St. Simons | 2734 West 52nd Street |
| 6. | St. Augustine | 5009 South Laflin Street |
| 7. | Holy Cross | 4541 South Wood Street |
| 8. | Sacred Heart | 4637 South Wolcott Street |

9. Gage Park Lutheran 53rd Street and Artesian Avenue
10. St. Rose of Lima 4807 South Marshfield Avenue
11. Visitation 856 West Garfield Boulevard
12. St. Rita 6152 South Fairfield Avenue
13. St. Turebius 4110 West 57th Street
14. St. Cyril and Methodius 5017 South Hermitage Avenue
15. St. Michael 1949 West 48th Street
16. St. Mary's of Desplaines Desplaines, Illinois
17. St. Adrian 7022 South Washtenaw Avenue
18. St. Agnes 2526 West Pershing Road
19. St. Anne 153 West Garfield Boulevard
20. St. Basil 5334 South Honore Street
21. St. Cecelia 220 West 45th Place
22. St. David 3211 Emerald Avenue
23. St. Gabriel 4500 Wallace Street
24. St. James 2912 South Wabash Avenue
25. St. Killian 8732 Aberdeen Street
26. St. Martin 320 West 59th Street
27. St. Pancratious 2940 West 40th Place

The thesis, "Characteristics of the Freshman Class of September, 1939, at Gage Park High School", written by Mae K. Callahan, has been accepted by the Graduate School with reference to form, and by the readers whose names appear below, with reference to content. It is, therefore, accepted in partial fulfillment of the requirements for the degree of Master of Arts.

Dr. Scanlan

October 28, 1940

Mr. Laughlin

November 15, 1940