A comparative study of rural and urban ninth grade pupils of the Summer Hill High School Cartersville, Georgia

James S. Morgan Jr.

Atlanta University

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A COMPARATIVE STUDY OF RURAL AND URBAN NINTH GRADE PUPILS
OF THE SUMMER HILL HIGH SCHOOL
CARTERSVILLE, GEORGIA

A THESIS
SUBMITTED TO THE FACULTY OF THE SCHOOL OF EDUCATION, ATLANTA UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF ARTS

BY
JAMES STANLEY MORGAN, JR.

SCHOOL OF EDUCATION

ATLANTA UNIVERSITY
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J.S.M.
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Rationale.— In the civilized world of today culture is constantly becoming more and more city dominated. In such countries as those of western Europe and in the United States the entire social environment partakes predominantly of urban ways. In the central core, the city, folkways and mores arise with greater ease and facility than in the rural areas. Modern inventions producing new and improved modes and techniques of physical and mental contacts between individuals and between groups, both large and small, have made it possible for urban culture to spread forth and literally permeate the entire environment. There are, of course, many essentially rural adjustments for which there can exist no urban counterpart, chiefly in the economic sphere, where urban influences may be hard to discern. Otherwise the cultural advances and the civilization of today emanate very largely from urban roots.

Without going into the causes and consequences of city growth, let it suffice to say that the modern urban life and organization are attributable chiefly to the development of commerce and of industry.

In most population characteristics there are sharp contrasts between the rural farm population, which has been least affected by urban life on one extreme and the higher urbanized population of the metropolitan center at the other extreme, with the rural non-farm population group taking a middle of the road position. What then is a city? Muntz\(^1\) reports

that the present day terms "city" and "urban community" are used like many other terms, with the greatest of ease and freedom. They convey a general idea, but lack exactitude. The basic concept, however, is that of a particularly compact spatial distribution of population. For practical purposes one may think of the city or urban community as consisting of a more or less permanent aggregation of general population (adults and children of both sexes) settled in relatively compact areas, wherein are carried on the customary social or family life, political organization as a rule, and industrial and distributive activities serving as a basic means of livelihood. Where a formal definition is desired several criteria are invoked to determine whether or not a given area is to be regarded specifically as a city. Thus the status by numerical size, as is most frequently the case, or it may be a question of legal incorporation or recognition by a superior governmental authority. The spread of the city is defined by territorial limits which determine where the city ends and another jurisdiction begins.

Jefferson states that although there are many valid objections to a strictly numerical basis for the classification of districts as urban or rural, this method is the generally accepted one.

Toward the middle of the past century France adopted 2,000 as the minimum number of inhabitants necessary to classify an area with a compact population as urban. This standard was accepted by many other countries, and was adopted by International Institute of Statistics in 1887. The United States, however, has always used an independent measuring rod.

The United States Census Bureau, between 1790-1920 classified as urban all compacted areas of 8,000 or more inhabitants. Beginning with the 1920 census, however, the numerical base for urban classification was changed to 2,500 bringing it relatively close to the generally accepted European standard. This continues to be the rod of measurement even today. Other nations with varying minimum population determinants for urban classification are Belgium with 5,000, Egypt with 11,000, Japan with 24,000, and the Ukraine with only 5,000. The United States Census Bureau recognizes, however, that this neat classification of population into rural and urban is inadequate for describing the wide differences within each of these populations so classified as rural or urban. To this end it has adopted a pattern of sub-grouping. The so-called principal cities all have populations of 100,000 or more. They are further sub-grouped into cities of 50,000 to 100,000; 25,000 to 50,000; 10,000 to 25,000; 5,000 to 10,000; and 2,500 to 5,000. The United States Census Bureau has come to recognize that even this elaborate sub-division of cities according to size is inadequate to describe the true social reality of the modern city. This is true because throughout America there is a major difference between the city as a political reality and the city as a social reality. Most cities as a social reality encompass far more people and territory than the city as a political reality.

Most large cities extend far beyond the political limits of the city. To resolve this conflict between the political and the socio-economic city the census bureau developed the concept of Metropolitan area as the mother city of the area and does not include the suburban or outlying areas.

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Cities are granted charters issued by state authorities which establish the status and classification. It seems best, then, to say of all those areas meeting the test of the United States Bureau of Census that they are urban.

Rural populations are categorized into rural farm and rural non-farm areas. Further sociologists have recognized the need for even more differentiated categorization of rural areas as evidenced by the concept of county tiers by which a rural area is described in terms of distance in counties it is removed from a city. All counties immediately bordering on the major city county are designated as tier one counties; and counties bordering the first tier are called tier two counties, and so on until the concentric character of the entire design is traced.

One of the most important differences between rural and urban America is the difference in ability to support education and the other social services. The average income per capita of rural agricultural communities is low compared to that of cities. As a result, living conditions are lower for rural, than for urban families. In general, housing is less satisfactory, school and library services are less adequate, because health and medical services are poor and less available, and provisions for social security are maintained at a much lower level. Reeves reported that in proportion to the number of adults of working age, rural communities have more dependent children and more old people than have cities. Therefore the adult working population of rural communities is placed under greater economic strain to support and care for dependents than is the adult working population of cities.

1 Floyd W. Reeves, Education for Rural America (Chicago, 1945), p. 12.
The state has recognized the inability of the rural areas to support education in the fashion that is desired and are attempting to eliminate the existing inequalities.

Likewise there exist inequalities between rural areas, between cities and between regions and the emerging concept is to think of children and people in general, not as belonging to a particular area in which they might happen to reside, but belonging to a nation. This becomes the problem of each state and the nation as people who are entitled to an equal opportunity to be guaranteed by the entire nation and by each state.

This is clearly exemplified in the trend toward the major inequalities within states by the states guaranteeing to all children, regardless of the locality in which they live or economic potential of that area, what is often referred to as a minimum foundation of education program. At the National level this concept of right to equality of the children within the state and region finds expressions in the most pressing educative problem. What is the responsibility of the federal government in providing equality of educational opportunities between the states or should the federal government expand its program of aid to education at the elementary and secondary level through grants in aid to states desiring to move inequalities or at least to guarantee a minimum national program of education to all children and youth? Certainly this concept of equality of educational opportunity does not mean identity of educational programs. Thus to achieve educational equality rather than educational uniformity or identity research is necessary to determine the extent of differentiation of educational needs in accordance with the area in which one lives, therefore the problem involved in this is crucial to an intelligent pursuit of the American ideal of equal educational opportunity for
all children and youth.

From the evidence of present trends, there seems to be little likelihood that all differences of the rural and urban communities will be obliterated, there can be no doubt, however, that many of the differences will be modified. The implication is that the differences will blend into a two way process. Kolb at the risk of over-simplifying and over-popularizing calls the interaction "urbanization" and "ruralization." These terms are widely used and denote the fusion of the urban areas into a oneness with the rural areas which Kolb refers to "Rurbanization."

To rurbanize means to bring the town and country together enrapport. This intermediary process is suggested as an explanation of a present trend. It is not merely a figure of speech to say that midway between country and city stands the village or small town, one hand extending toward the country and the other toward the city. It is rather a description of an actual situation. Likewise the rurban community of town and country manifests many features of a reconciliation between extreme ruralism and extreme urbanism. And finally, the designation of the village or small town as the midpoint toward which the changing characteristics of both country and city populations are approaching, is a representation of present and future trends. Rural and urban societies already tend to resemble each other in many respects, a resemblance which may continue as the expression of modern relationship, and this without undue sacrifice of those unique qualities which have characterized their past and which are needed for their future.

Thus the concept of rurbanization as a description of the social process operating in America today may hold important educational implications. For if we are to think of rurbanization as a process of integration of rural and urban and as being a two way interaction in which the best of the unique qualities of both rural and urban are to be conserved, then the educational system which should accompany rurbanization should likewise be developed to preserve and extend the unique values of both. Thus we should not think of the consolidated school, which in most instances, will be located in villages, towns, and small cities as being schools which will seek to embody only one set of values, namely: urban, but the best in both. It, likewise, must be adjusted to the unique needs, if there are unique needs, of the children who come from the differentiated areas — whether we call these differentiated areas—rural or urban.

Pursuit of knowledge concerning the achievement, intelligence, and personality adjustment of children who come from these differentiated areas prompted the writer to make this study.

Statement of the Problem.— This problem involves a comparative study of rural and urban ninth grade pupils of the Summer Hill High School, Cartersville, Georgia, in intelligence, achievement, and personality adjustment.

Purpose of the Study.— The purposes of the study were:

1. To determine the difference, if any, in intelligence of the urban and rural pupils
2. To determine the difference, if any, in achievement of the urban and rural pupils
3. To determine the difference, if any, in personality adjustment
of urban and rural pupils

Subjects Involved.— The subjects involved in this study included the entire enrollment of the ninth grade of the Summer Hill High School, Cartersville, Georgia. There were fifty-one pupils.

Definition of Terms.— In this study "urban pupil" referred to that pupil who has attended the Summer Hill High School since he entered the first grade. "Rural pupils" are those pupils who came from one, two, or three teacher schools.

"Intelligence" referred to that which is measured by the California Short-Form Test of Mental Maturity.¹

"Achievement" is referred to that which is measured by the Progressive Achievement Tests—Intermediate Battery.²

"Personality" referred to that which is measured by the California Test of Personality—Intermediate series.³

The Situation.— Cartersville, Bartow County, Georgia is located in the Northwestern part of the state. It is essentially a mining and milling town. Agriculture is the third main occupation of the county.

The population of Cartersville is 7270; 5394 are white, 1876 are Negroes.

The population of Bartow County is 27,370; 24,752 are white, 2618 are Negroes.⁴

¹ Elizabeth T. Sullivan, Willis W. Clark, and Ernest W. Tiegs, California Test of Mental Maturity, Short Form, 1950.
² Ernest W. Tiegs, and Willis W. Clark, Progressive Achievement Test—Intermediate, Form C.
³ Willis W. Clark, Ernest W. Teigs, and Louis P. Thorpe, The California Test of Personality—Intermediate Battery, Form A.
Cartersville is served by the Louisville and Nashville railroad in cooperation with the Nashville, Chattanooga and Saint Louis railroad and two branches of the Southeastern Greyhound bus Company. It is situated on United States Highway Number 41, forty miles north of Atlanta.

Most of the Negro men are employed in mines and mills while many of the Negro women are employed as cooks, maids, and laundresses in private homes. Some few Negro men are employed at the Lockheed installation in nearby Marietta.

There are few Negro skilled laborers in Cartersville and/or Bartow County, namely: carpenters, brick masons, and plumbers. The professions represented by Negroes are teaching, medicine, and theology.

There are sixteen teachers in the city supported combination elementary-high school. The enrollment of the school is 506; 363 elementary pupils and 143 are high school pupils.

The Summer Hill High School is located on the north side of the town in a section which is desirable because the bulk of the Negro population lives in that section and the two largest churches of the town are also located there.

The physical plant of the school consists of two frame buildings. The main building houses all the academic classrooms, the manual arts shop, and the cafeteria. The cafeteria is in the basement which was conveniently made as a result of the contours of the hill upon which the school is built. The second building is located behind the main structure and is used for the Home Economics Cottage.

Bartow County maintains for its Negroes in education, seven frame buildings in seven communities of the county. These buildings have two and three rooms each. They are furnished with electricity, heated with
coal and in most cases have running water. They all have outdoor toilet facilities.

Pupils who have finished these elementary schools, (8 grades) are transported by school busses to and from the Summer Hill High School for further training. There are four busses operating to transport the rural pupils. These busses also transport the rural elementary children to the rural elementary schools.

The teacher experience, class load, and types of certificates are presented in Table 1.

| TABLE 1 |
| CERTIFICATES, MEAN EXPERIENCE, AND MEAN CLASS LOAD OF TEACHERS OF RURAL AND URBAN SCHOOLS |

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<th>Certificate</th>
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<th></th>
<th>URBAN</th>
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<td>D-4</td>
<td>D-3</td>
<td>D-2</td>
<td>B-3</td>
<td>C-4</td>
<td>D-4</td>
<td>D-3</td>
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<tr>
<td>Teachers</td>
<td>10</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Mean Experience in Years</td>
<td>2</td>
<td>23.33</td>
<td>25</td>
<td>3</td>
<td>19.14</td>
<td>36</td>
<td>3</td>
<td></td>
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<tr>
<td>Mean Class Load</td>
<td>30</td>
<td>31</td>
<td>32.5</td>
<td>29</td>
<td>32</td>
<td>45.71</td>
<td>31</td>
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Procedure.— The tests used for this study were:

1. The Progressive Achievement Test, Intermediate Battery, Form C by Ernest W. Tiegs and Willie W. Clark.

2. The California Test of Personality, Intermediate Battery, Form A by Willis W. Clark, Ernest W. Tiegs and Lewis P. Thorpe.

3. The California Short-Form Test of Mental Maturity, Intermediate Battery, by Elizabeth T. Sullivan, Willis W. Clark, and Ernest W.
Tiegs.

The writer selected the afore named tests for the following reasons: The Progressive Achievement test because of its use of basic subjects: Reading, Arithmetic, and Language; The California Test of Mental Maturity tests language and non-language factors; and the California Test of Personality because of its simplicity of language. Other tests are as valid and reliable but the above named factors formed the basis for the writer's selection.

The purpose of this study was achieved through the following steps:
1. On May 12, 1952, the subjects were assembled in the school gymnasium. The test booklets of the California Short-Form Test of Mental Maturity were distributed, blanks on the face of the tests filled out and at 9:00 A.M. the writer administered the test according to the directions set forth in the manual.
2. On May 13, 1952, the subjects were again assembled in the school gymnasium. Test booklets of the California Test of Personality were distributed, blanks on the face of the tests were filled out and at 9:00 A.M. the writer administered the test according to the directions set forth in the manual.
3. On May 14, 1952, the same subjects were reassembled in the school gymnasium. Test booklets of the Progressive Achievement Tests—Intermediate Battery Form C were distributed, blanks on the face of the tests filled out and at 9:00 A.M. the writer administered the test according to the directions set forth in the manual. Strict adherence to all time suggestions was an essential.
4. The writer scored each set of tests by comparing the subjects' answers with the answers on the key provided with each set.
5. Scores on the intelligence and achievement tests were compared with norms.

6. Means in each major component of personality adjustment derived from the California Test of Personality were compared with the test mean of each component.

7. The data were analyzed and interpreted with the results presented in Chapter III.

Conclusions were drawn exclusively from the data collected in the study are presented in Chapter III.

Limitation of Study.—This study was limited to whatever lack of validity the instruments employed may have and it does not measure all factors implied in intelligence, achievement or personality. The study was limited in that the writer was using only a small number of subjects.
CHAPTER II

RELATED LITERATURE

Introduction.— The specific purpose of this study was to compare the scholastic achievement of rural and urban children. But because of the high correlation that is usually found between intelligence, personality and school achievement the writer was also interested in making a comparison of the general intelligence and the personality adjustment of the rural and urban groups. The related literature, therefore, will deal with both the comparison of intelligence and the personality adjustment in addition to the comparison of the school achievement of the two groups.

There is a rather general opinion that rural children are less capable of school achievement than are the urban children. In fact, this opinion seems to be supported by the results from intelligence tests in which urban children rather consistently make higher scores than rural children.

Since intelligence tests measure acquired skills as well as innate capacities, it is doubtful that there is any basis for thinking that they are instruments by which the relative intelligence of rural and urban populations may be determined.

Smith\(^1\) calls attention to the fact that Sorokin and Zimmerman and Galpin have sifted sixty-five studies in which these tests have been used to compare rural-urban intelligence, and these authors have considered only the most important ones. With scarcely an exception these tests

reveal rural persons and agriculturists to have lower I.Q.'s than the urban persons and the non-agricultural occupational groups.

Sorokin and Zimmerman according to Smith,¹ also contend that the tests are biased in favor of urban groups, and offer the following analysis in support of their contention: (1) the tests measure the direct experience which falls within the experience world of the urbanite more than the ruralite. This is to say that they deal with concrete situations such as tennis games, in which the urban population participates, more than plowing or milking cows etc. the everyday activities of rural folk; (2) the tests are based upon indirect experience more than direct experience. The urban person has acquired a larger share of his mental luggage through reading, through conversation, and in other indirect ways than through direct, first-hand experience, while the opposite is the case with the man in the country. For this reason the tests which measure, "book learning" obviously are unfair to the farm population; (3) the tests are administered by means of certain activities which fall within the everyday work and recreation of city people, such as, reading, writing, and calculating: not by means of the activities which are customarily done by rural people.

The homes of rural Negro youth are, with few exceptions, dismally inadequate. Their schools which have the support of the state are scarcely better. Unattractive schools and a lack of supplies for class work do little to inspire pupils with aesthetic feelings or to induce teachers to put forth their best efforts.²

¹ T. Lynn Smith, op. cit., pp. 119-21.
Wofford\textsuperscript{1} reports that according to the modern conception of education, all children are important, but the rural child has special significance in American life for two reasons.

(a) Over half of the children of America are found in rural areas, and (b) the place occupied by the child is of supreme importance in the family group.

In the available studies of rural children controversy has developed among psychologists and sociologists concerning their intelligence, physical welfare and emotional development. He also makes the following summary of the status of rural school children in regard to their intelligence:

1. The intelligence of rural school children is slightly lower than that of urban children. This statement is not true at birth and indicates casual experiences, and training to be actualized into abilities, interests, emotional habits and other general predispositions of all kinds, all more or less well integrated into the developing personality. Some environments are more stimulating and generally more favorable than others, and consequently native capacities do not always bear fruit in equivalent levels of developed ability.

2. The school situations may be so much more favorable and effectively stimulating than extra school situations. That educational achievement reaches a higher level than "intelligence." On the other hand, the reverse situation and outcomes may be obtained.

Kyte\textsuperscript{2} reports that, in general, the age-grade status of the rural school child who continues in school is relatively the same as that of the child in the city schools. In the middle elementary grades, there

\textsuperscript{1} Kate V. Wofford, Modern Education in the Small Rural School (New York, 1938), p. 52.

is a larger percentage of over-age children than in the city schools. The rural school teachers tend to promote a smaller percentage of their pupils than do the city teachers. The greatest difference occurring in the first, seventh, and eighth grades. Mental ages of the rural first grade children are slightly lower than for those of the urban first grade pupils. In the first two grades the average child's intelligence quotient in the rural school is slightly lower than that of the average child in the corresponding grade school in the city.

School achievement of pupils in the rural schools, as measured by standardized tests, is less satisfactory than that of the city school pupils. The size of the school and the length of the term seem to cause some difference.¹

Glessner and Graham,² in their study of 660 pupils in the junior high school in Berkely, California, found that 98 per cent were failures. From the data collected and the research, Glessner and Graham concluded that (1) the percentage of failures in a school vary with the ability of the pupils; (2) the type of the community is a determining factor in scholastic attainment; (3) the type of teaching in elementary schools is equally good or bad; (4) the colored race furnishes a greater percentage of failures, and (5) there are fewer failures among girls.

"Children from rural background always score poorly on tests of intelligence. Moreover, many items of the average intelligence test are based on experiences one has in a city but does not have in the country."³

¹George C. Kyte, op. cit.
²Harry G. Glessner and Leo J. Graham, "A Study of Retardation and Failure in Junior High Schools," Educational Administration and Supervision, XIX (February, 1933), 81.
We do not have final answers as to the relative importance of environment and heredity in growth. Growth is the process of and the result of interaction between the two. It is always difficult to determine to what extent an individual is what he is because of his parents and his grandparents or because he happens to live on the right or wrong side of the tracks.

In no small part, high scores on most intelligence tests demand ready facility in the manipulation of tools and concepts, that fall within the customary routine of city people, skills acquired outside the ordinary activities of the farm population. Such general criticisms are sufficient toward that evidence from the tests for branding rural people as inferior to urban folks in intelligence.

It is generally concluded that urban children do rate higher than do rural children on the standardized intelligence test. But regarding the idea that standardized test are biased in favor of urban people, Ruth Strang makes the following observation:

Many of the tests used in rural schools do not test the most important objective of rural education. Almost all the tests have been standardized on much larger number of urban than rural children and their "norms" are consequently not entirely appropriate for rural children. Moreover, Standardized tests with their directions for careful timing, their scoring keys, and their table of norms, seem rather technical to many teachers who have had no training and experience in testing. The time they take to administer and score, and their cost likewise loom large as limitations in the rural school.

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Clem and Hovey,\(^1\) made a study of 193 village-school and 196 rural-school pupils as to their performance in the New York state Regent examination which is a battery of tests comprising arithmetic, English, geography, spelling and history. It was found that the means of the village group was higher than the rural group in each subject. The standard deviations were smaller for the rural schools than for the village schools.

Armstrong\(^2\) made a study to compare intelligence and achievement of urban and rural pupils in northwest Chester County, New York, and in New York City. He found that urban children and rural children do not differ in intelligence, either verbal or concrete, if of American parentage, of equivalent occupational class and of equal good heritage, and the rural area is probably as beneficial an environment for bringing up children as urban. The tests used in the study were the Otis Intermediate Group Test of Intelligence, Army Beta and Army Individual Performance Scale.

In a study of elementary pupil status in the rural schools, in different states, materials gathered from published and unpublished works, Kyte\(^3\) found that the mental ages for the rural first grade children are only slightly lower than the urban first grade pupils in various states.

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for which data could be obtained. As the grades went higher the difference became larger. By the time the pupils reached sixth grade the rural children are mentally a year or more younger than the average city child in the same grade.

Sherman and Kay\textsuperscript{1} concluded from their study of measuring the intelligence of mountain children that the children develop according to the demands of their environment. They observed that intelligence was highest in communities of higher social development.

Garrett\textsuperscript{2} points out that the bulk of school children, perhaps sixty-five per cent, will be found to have intelligence quotients between eighty-five and 115. If not kept back by illness or loss of schooling through other causes, these children should complete elementary school and high school. In many cases, however, they are not good college risks and should not be encouraged to seek general education beyond the high school level. To complete successfully the work of a good college, a young person should possess an intelligence quotient of 120 or above. Children with intelligence quotients below ninety have little chance of graduating from a first class high school, while children with intelligence quotients in the 80's will rarely get beyond the seventh grade, and then, two or three years behind schedule.

How much of a person's intelligence - test rating depends upon native and inherited powers, and how much can be properly attributed to opportunity and circumstances? Unfortunately, no exact answer can be given

\textsuperscript{1}Mandel Sherman and Cora B. Kay, "The Intelligence of Isolated Mountain Children," \textit{Review of Educational Research}, XVI (February, 1935), 211.

to this often-discussed question. Children do not have the same parents and do not grow up in a vacuum. Inborn factors, therefore, cannot be studied apart from those of environment (opportunity, training, etc.).

Another difficulty is the fact that "water seeks its level" in the sense that intelligent people tend more often to be found in the upper- and dull people in the lower-social and economic brackets. In a large sample of very bright pupils, 81 per cent of those testing above 140 I.Q. were from families of good status - fathers in professional, semiprofessional and business classes. Only .13 of a per cent of children above 140 I.Q. came from families in which the father was a day laborer. In general, children of professional parents average 116 I.Q.'s, those whose parents are unskilled laborers, 98 per cent. Part of this difference may be attributed to opportunity, but most of it is probably a matter of superior inheritance. Evidence of the relative strength of nature and nurture, as found in careful statistic studies, indicates that approximately 75-80 per cent of measured differences in I.Q.'s among children can be attributed to heredity. The remaining 25 per cent must be credited to differences in the environment. No matter how good the environment is, it cannot overcome the handicap of defective inheritance.

Achievement.— As in the use of intelligence tests it is the general opinion of psychologists and sociologists that rural children do not score as high on achievement tests as do children from the city and town.

The Thirtieth Yearbook of the National Society for the Study of Education reports a study made by Van Wagener in which he surveyed pupil

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Achievement in rural, town and city schools in Mississippi. He found that the city and town children ranked higher than the rural children on achievement tests.

In a study to compare the subject matter achievement in the different types of elementary schools in Virginia, Ingle found that the average Negro pupil in Virginia was retarded about a year or more than the average white pupil. The average rural Negro pupil was retarded educationally nineteen months more than the corresponding urban Negro pupil in the state.

Strozier, according to Mazique in a comparative study of the mental ability and achievement of rural and city pupils, administered the Detroit Alpha Intelligence Test and the New Stanford Achievement Test. He found that city pupils possessed greater native abilities and ranked higher in achievement than the rural school children.

In a Master's Thesis at the University of Nebraska in 1940, Jesse J. Carrol made a study of the achievement in rural and village schools in Lancaster County, Nebraska. He compared the marks of the village and the rural school pupils in the eighth grade in 1939 on the Progressive Achievement Test. The study revealed the fact that eighty-one per cent of the rural pupils and seventy-nine per cent of the urban pupils were

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1 John Preston Ingle, "Subject Matter Achievement in Rural Elementary Schools in Virginia," Dissertation Abstract at the University of Virginia, 1939.


3 Jesse J. Carrol, "Achievement in Rural and Village Schools of Lancaster County, Nebraska." Unpublished M. A. thesis, University of Nebraska, 1940.
average for grade placement. He recommended kindergarten for rural schools; testing rural children at the close of the sixth grade for the purpose of guiding remedial work in the seventh and eighth grades; and requirement that test be given to eighth grade pupils before they are permitted to enter high school.

Wilson and Ashbaugh¹ made a study and found that the difference in the achievement scores in the rural-consolidated schools were slight, but always in favor of the consolidated schools. They reached the conclusion "that in a large number of measurements, a persistent difference in a given direction, even though the difference is small, indicates a true difference in that direction." This study included all pupils in grades three-eight inclusive in four consolidated schools in nine counties in Ohio in the spring of 1929.

In a comparative study of the accomplishments of pupils in forty-nine rural schools in Oklahoma Nelson² found that there is a difference in the achievement of pupils in schools of varying length of terms.

In 119 comparisons the nine month schools were superior in 109 cases or in 91.6 per cent of the comparisons. The nine month schools surpassed the others in all subjects by eleven per cent.

**Personality.**—Louise May Snyder³ in a study of elementary school

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³ Louise May Snyder, "The Problem Child in Jersey City Schools," *Journal of Educational Sociology*, XII (February, 1934), 348.
children of Jersey City, New Jersey, found that the mean I.Q. and the mean for the average school grades were lower for the problem than for the non-problem children.

As a result of a study among a group of elementary school children in Jordan and Weedsport, New York, Keys and Whiteside found that nervous and emotional children display a strong and reliable tendency to average more than a year retarded in age-grade standing.

As a result of a study among 800 elementary school children in public schools located in Minnesota, M. E. Haggerty found that a much larger amount of undesirable behavior was recorded for average or retarded pupils for normal or under-age pupils. He also found that a gradual increase in behavior score is evident as the intelligence quotient moves downward.

In a study made in Miami County, Ohio during the spring of 1946, Mangus gathered data from 1229 third and six grade pupils living on farms, in villages and in urban homes. Of these subjects 537 lived in rural non-farms homes, 371 lived on farms, and 285 lived in a city of 17,000 inhabitants.

The problems of this study were to determine whether living on a farm and growing up in a farm home proved a help or a hindrance to the

achievement of a desirable personality as compared to living in a village or living in a city. As a result of statistical analysis it appeared conclusive that in Miami County, Ohio in the spring of 1946, farm children as a group had achieved a somewhat higher level of personal and social adjustment than the urban children living in the small city included in the study. This assumes, of course, that the California Test of Personality provided a valid measure of these group differences.

While Miami County farm children differed favorably from city children in that county in personality adjustment, no significant difference, either in the self-adjustment or in the social adjustment were found between rural farm and rural non-farm boys and girls.

This division of the review, the relationship of personality to achievement and intelligence, reveals that most studies report some positive relationship between personality and achievement and between personality and intelligence.

Griffiths reports a study made at Ohio University with freshman men for the purpose ascertaining if there is any significant relationship between personality adjustment and scholastic achievement. The Bell Adjustment Inventory was used to measure personality adjustment and the first semester point-hour ratio was used to measure scholastic achievement. The statistical technique was employed in making the study.

The findings pertinent to this study are that the freshman man with brilliant scholastic records are not superior in personality adjustment to those with the lowest scholastic records; that the grades of men with

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very unsatisfactory personality adjustment do not differ significantly from grades of men with excellent personality adjustment scores; and that personality test scores of men in the lowest decile of college ability do not differ greatly from those of men in the highest decile. The author reports, however, that in every case except one there is a difference which suggest some degree of positive correlation between scholastic achievement and personality but the differences are not large enough to be statistically significant.

Reavis, after studying problem cases among boys at the University of Chicago High School over a three year period (1921-1924), found that personality difficulties rank second in a list of six causes of failures in high school subjects.

In a study made with seventh grade girls in Maples Junior High School Deaborn, Michigan, Spinelle and Nemzek report the relationship between personality as measured by the inventory, and achievement as measured by school marks is low.

Conclusions.-- From the review of related literature it seems rather conclusive that there is a difference in the intelligence, achievement, and personality adjustment of rural and urban children in favor of the urban groups.

Nevertheless, the related literature also reveals rather constant doubt on the part of the investigators as to the validity of the instruments used for measuring these differences; that is; it is generally

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thought that rural children score lower on these various tests, not because of inferior abilities, but because the tests usually serve as an interpretation of urban environments. In fact, Smith referred to a study done by Myra E. Shimburg that points out this view. Her study posited the hypothesis that the failures of the rural children to score as high on intelligence tests as urban children is due not to any innate intellectual differences between the two groups, but the tools used in measuring them. The findings in the related literature, therefore, seem to point to the need for further experimentation to determine the causes of the differences of the test scores made by rural and urban children, rather than to any conclusive evidence that rural children are mentally inferior to urban children.

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CHAPTER III

PRESENTATION AND INTERPRETATION OF DATA

Procedure.— In order to determine the difference, if any, between the rural and urban ninth grade pupils of the Summer Hill High School, as judged by the chosen instruments, it was necessary to use certain statistical techniques.

From the scores obtained in each of the three tests employed, the means, the standard deviations, the standard error of the means, the difference between the means, and the "t" ratio for the difference between the means, were used to determine the difference, if any, in intelligence, in achievement, and personality adjustment between rural and urban pupils, the Pearson Product-Moment Co-efficient of Correlation was used to determine the relationship of personality to intelligence. These data are presented in tabular form.

Fishers' "t" test of significance was used to determine the significance of the difference of the means. The table of correlation and "t" ratios was used to determine if the computed "t" ratios were significant. With twenty-three degrees of freedom "t" must be 2.807 to be significant at the five per cent level of confidence, which was the level of confidence chosen as the standard for determining reliability of difference.

Presentation.— In order to determine the difference, if any, between the urban and rural pupils, the first purpose of the study, it was necessary to use certain statistical techniques. From the scores obtained

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from the California Test of Mental Maturity, the mean, standard deviation, standard error of the mean, difference between the means, and the "t" ratio were used.

Intelligence.-- Data derived from the administration of the California Test of Mental Maturity are presented in Table 2.

TABLE 2

COMPARATIVE CHRONOLOGICAL AGE SCORES AND MENTAL AGE SCORES OF URBAN AND RURAL NINTH GRADE PUPILS WHEN MATCHED FOR THEIR INTELLIGENCE QUOTIENTS

<table>
<thead>
<tr>
<th>Pupil</th>
<th>I.Q.</th>
<th>C.A.</th>
<th>M.A.</th>
<th>Pupil</th>
<th>I.Q.</th>
<th>C.A.</th>
<th>M.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td>11.3</td>
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<td>284</td>
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<td>14.6</td>
<td>155</td>
<td>227</td>
</tr>
<tr>
<td>S</td>
<td>11.2</td>
<td>186</td>
<td>264</td>
<td>A</td>
<td>13.7</td>
<td>192</td>
<td>264</td>
</tr>
<tr>
<td>D</td>
<td>136</td>
<td>191</td>
<td>261</td>
<td>C</td>
<td>13.6</td>
<td>208</td>
<td>261</td>
</tr>
<tr>
<td>M</td>
<td>120</td>
<td>178</td>
<td>178</td>
<td>J</td>
<td>13.5</td>
<td>182</td>
<td>216</td>
</tr>
<tr>
<td>M</td>
<td>120</td>
<td>194</td>
<td>230</td>
<td>B</td>
<td>12.9</td>
<td>204</td>
<td>218</td>
</tr>
<tr>
<td>D</td>
<td>118</td>
<td>164</td>
<td>194</td>
<td>B</td>
<td>86</td>
<td>178</td>
<td>153</td>
</tr>
<tr>
<td>C</td>
<td>93</td>
<td>166</td>
<td>154</td>
<td>M</td>
<td>85</td>
<td>192</td>
<td>163</td>
</tr>
<tr>
<td>W</td>
<td>91</td>
<td>164</td>
<td>168</td>
<td>W</td>
<td>84</td>
<td>194</td>
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<td>192</td>
<td>167</td>
<td>M</td>
<td>84</td>
<td>204</td>
<td>161</td>
</tr>
<tr>
<td>D</td>
<td>85</td>
<td>210</td>
<td>163</td>
<td>E</td>
<td>84</td>
<td>194</td>
<td>161</td>
</tr>
<tr>
<td>C</td>
<td>85</td>
<td>191</td>
<td>163</td>
<td>S</td>
<td>81</td>
<td>215</td>
<td>155</td>
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<tr>
<td>C</td>
<td>82</td>
<td>213</td>
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<td>154</td>
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<td>192</td>
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<td>131</td>
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<td>G</td>
<td>77</td>
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<td>136</td>
<td>W</td>
<td>71</td>
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<td>137</td>
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<td>114</td>
<td>H</td>
<td>71</td>
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<td>136</td>
</tr>
<tr>
<td>B</td>
<td>76</td>
<td>171</td>
<td>132</td>
<td>W</td>
<td>71</td>
<td>180</td>
<td>128</td>
</tr>
<tr>
<td>S</td>
<td>71</td>
<td>192</td>
<td>137</td>
<td>C</td>
<td>71</td>
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<td>C</td>
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<td>J</td>
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<td>133</td>
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<td>J</td>
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<td>188</td>
<td>133</td>
<td>W</td>
<td>68</td>
<td>220</td>
<td>130</td>
</tr>
<tr>
<td>H</td>
<td>68</td>
<td>196</td>
<td>133</td>
<td>M</td>
<td>66</td>
<td>190</td>
<td>126</td>
</tr>
<tr>
<td>B</td>
<td>68</td>
<td>192</td>
<td>130</td>
<td>R</td>
<td>64</td>
<td>200</td>
<td>158</td>
</tr>
<tr>
<td>A</td>
<td>66</td>
<td>190</td>
<td>126</td>
<td>C</td>
<td>58</td>
<td>192</td>
<td>111</td>
</tr>
<tr>
<td>J</td>
<td>65</td>
<td>184</td>
<td>120</td>
<td>P</td>
<td>56</td>
<td>214</td>
<td>107</td>
</tr>
<tr>
<td>C</td>
<td>63</td>
<td>205</td>
<td>122</td>
<td>E</td>
<td>56</td>
<td>192</td>
<td>108</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean</th>
<th>85.19</th>
<th>193.19</th>
<th>167.66</th>
<th>76.88</th>
<th>197.65</th>
<th>163.08</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;t&quot;</td>
<td>1.03</td>
<td></td>
<td></td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean chronological age for the rural pupils was 197.65 months,
while the urban pupils had a mean chronological age of 193.49 months. There was a difference of 4.16 in mean chronological ages of the two groups. It was found that "t" was 1.03 and was not significant. Therefore the mean difference of 4.16 was not significant, however, the numerical difference that did appear was in favor of the urban group.

The data in Table 2 indicate that the mean mental age of the rural pupils was 163.08 months while the urban pupils had a mean of 167.66 months. There was a difference of 4.58 in the mean mental age of the two groups. It was found that "t" was 1.00 and was not significant at the five per cent level of confidence. The numerical difference that did appear, however, was in favor of the urban group.

The statistical analysis of the data of the test of mental maturity is presented in Table 3.

**TABLE 3**

THE STATISTICAL ANALYSIS OF THE DATA DERIVED FROM THE CALIFORNIA TEST OF MENTAL MATURITY

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
<th>Difference of Means</th>
<th>Standard Error Difference</th>
<th>&quot;t&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>24</td>
<td>76.88</td>
<td>23.33</td>
<td>4.76</td>
<td>8.31</td>
<td>6.96</td>
<td>1.19</td>
</tr>
<tr>
<td>Urban</td>
<td>26</td>
<td>85.19</td>
<td>25.93</td>
<td>5.08</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The obtained difference between the mean of the rural group and the mean of the urban group is 8.31 in favor of the urban group. A "t" ratio of 1.19 was not significant at the five per cent level of confidence.

Achievement—A statistical analysis of the data derived from the Progressive Achievement Test is presented in Table 4.
TABLE 4

THE STATISTICAL ANALYSIS OF THE DATA DERIVED FROM THE PROGRESSIVE ACHIEVEMENT TEST

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Means</th>
<th>Standard Error Difference</th>
<th>&quot;t&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>24</td>
<td>183.67</td>
<td>12.27</td>
<td>8.62</td>
<td>10.45</td>
<td>0.53</td>
</tr>
<tr>
<td>Urban</td>
<td>26</td>
<td>194.12</td>
<td>91.37</td>
<td>17.91</td>
<td>19.62</td>
<td></td>
</tr>
</tbody>
</table>

The obtained difference between the mean of the rural group and the mean of the urban group was 10.45 in favor of the urban group. The "t" ratio of this difference is 0.53. Thus, there was no significant difference at the five per cent level of confidence.

Personality— The statistical analysis of the data on total adjustment derived from the California Test of Personality is presented in Table 5.

TABLE 5

THE STATISTICAL ANALYSIS OF THE DATA DERIVED FROM THE CALIFORNIA TEST OF PERSONALITY

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Means</th>
<th>Standard Error Difference</th>
<th>&quot;t&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>24</td>
<td>120.83</td>
<td>20.09</td>
<td>4.08</td>
<td>9.75</td>
<td>1.69</td>
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<tr>
<td>Urban</td>
<td>26</td>
<td>130.58</td>
<td>20.65</td>
<td>4.05</td>
<td>5.75</td>
<td></td>
</tr>
</tbody>
</table>

In total adjustment the difference between the mean was 9.75 favoring the urban group. The standard error of the difference was 5.75. Thus, the "t" of 1.69 was not significant at the five per cent level of
confidence with twenty-three degrees of freedom.

**Self Adjustment.**—The statistical analysis of the data derived from the California Test of Personality in the major component of self adjustment is presented in Table 6.

### TABLE 6

**THE STATISTICAL ANALYSIS OF THE DATA DERIVED FROM THE CALIFORNIA TEST OF PERSONALITY IN SELF ADJUSTMENT**

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
<th>Difference of Means</th>
<th>Standard Error Difference</th>
<th>&quot;t&quot;</th>
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</thead>
<tbody>
<tr>
<td>Rural</td>
<td>24</td>
<td>56.6</td>
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<td>2.09</td>
<td>6.23</td>
<td>3.06</td>
<td>2.03</td>
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<tr>
<td>Urban</td>
<td>26</td>
<td>62.69</td>
<td>11.46</td>
<td>2.24</td>
<td></td>
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<td></td>
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</tbody>
</table>

In self adjustment the difference between the means was 6.23 favoring the urban group. The standard error of the difference was 3.06. Thus, the "t" of 2.03 was not significant at the five per cent level of confidence with twenty-three degrees of freedom.

**Social Adjustment.**—A statistical analysis of the data derived from the California Test of Personality in the major component of social adjustment is presented in Table 7.

According to the statistical data concerning differences derived from the scores obtained by the subjects, the standard error of the difference was 2.97. The ratio of the difference to the standard error of the difference was 0.09. It was not significant at the five per cent level of confidence with twenty-three degrees of freedom.
TABLE 7

THE STATISTICAL ANALYSIS OF THE DATA DERIVED FROM THE CALIFORNIA TEST OF PERSONALITY IN SOCIAL ADJUSTMENT

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Means</th>
<th>Difference of Means</th>
<th>Standard Error Difference</th>
<th>&quot;t&quot;</th>
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</thead>
<tbody>
<tr>
<td>Rural</td>
<td>24</td>
<td>66.90</td>
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<td>2.11</td>
<td>0.28</td>
<td>2.97</td>
<td>0.09</td>
</tr>
<tr>
<td>Urban</td>
<td>26</td>
<td>66.62</td>
<td>10.69</td>
<td>2.09</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Relationship of Personality to Intelligence.-- The statistical analysis of the data from the California Test of Personality and the California Test of Mental Maturity to calculate the coefficient of correlation from ungrouped data when the deviations are original scores is presented in Table 8.

It was found, in dealing with the urban pupils that the correlation was \(0.21\) which is positive but low. The standard error was 0.19 and since the obtained difference was not three times its standard error it is not statistically significant.

The rural children had a correlation of \(-0.50\). The standard error of the correlation was 0.102. Since the obtained correlation was more than three times the standard error \(r\) was significant. There was a marked negative correlation between personality and mental maturity of the rural group.
TABLE 8
CORRELATION AND MEANS OF SCORES MADE ON TEST OF MENTAL MATURITY AND TEST OF PERSONALITY ADJUSTMENT OF URBAN AND RURAL PUPILS

<table>
<thead>
<tr>
<th>Rural Pupil</th>
<th>Intelligence</th>
<th>Personality</th>
<th>Rural Pupil</th>
<th>Intelligence</th>
<th>Personality</th>
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<tbody>
<tr>
<td>1</td>
<td>137</td>
<td>86</td>
<td>1</td>
<td>66</td>
<td>158</td>
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<tr>
<td>2</td>
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Means 83.49 123.10 87.59 130.98
R 0.21 -0.50
CHAPTER IV

SUMMARY AND CONCLUSIONS

Summary. — This was a comparative study of the rural and urban ninth grade pupils of the Summer Hill High School, Cartersville, Georgia, to ascertain the differences, if any, in the intelligence, achievement, and personality adjustment as measured by the three instruments employed and the relationship of intelligence and personality.

The subjects involved in this study were fifty pupils of the ninth grade of the Summer Hill High School. Of the entire enrollment of the ninth grade of fifty-one pupils, one pupil had lived in both the rural and urban areas and had gone to school in both situations and was therefore excluded from the study. There were twenty-six urban pupils, sixteen girls and ten boys, and twenty-four rural pupils, eighteen girls and six boys. The average chronological age for the urban pupils was sixteen years while the rural group had an average of 16.25.

The normative survey method of research was used in this study. Specific techniques used were testing and statistics. The three tests used in this study were administered by the writer according to the directions set forth in each manual. The writer scored each set of tests by comparing the subjects' answers with the answers on the key provided with each test. The data were tabulated, analyzed, and interpreted with the results presented in Chapter III.

Findings. — The following findings are based upon the data presented here and are the answers to the questions proposed in Chapter I.

1. The mean intelligence of the rural group was 76.88. The mean
intelligence of the urban group was 85.19. The obtained difference between the mean intelligence of the rural group and the mean intelligence of the urban group was 8.31. There was a "t" ratio of 1.19 which was not significant at the five per cent level of confidence. Thus, there is no statistically reliable difference in intelligence of the rural and urban group. The numerical difference that did appear, however, was in favor of the urban group.

2. The mean achievement of the rural group was 183.67, giving a mean grade placement of 6.5. The mean achievement of the urban group was 194.12 giving a grade placement of 6.7. The obtained difference between the mean achievement of the rural group and the mean achievement of the urban group was 10.45. There was a "t" of 0.53 which was not significant at the five per cent level of confidence. Thus, there was no significant difference between the achievement of the rural and urban groups. The numerical difference that did appear, however, was in favor of the urban group.

3. The mean adjustment score for the rural group was 120.83 placing this group in twentieth percentile. The mean adjustment score of the urban group was 130.58 placing this group in the thirtieth percentile. The obtained difference between the mean of the rural group and the mean of the urban group was 9.75. There was a "t" of 1.69 which was not significant at the five per cent level of confidence. Thus, there was no significant difference in total adjustment of the rural and urban groups. The numerical difference that did appear was in favor of the urban group.

4. In self adjustment the rural group had a mean of 56.46. The urban group had a mean of 62.69. The obtained difference between the mean of
the rural group and the mean of the urban group was 6.23. There was a "t" of 2.03 which was not significant at the five per cent level of confidence. Thus, there was no statistically reliable difference in self-adjustment between the rural and urban groups. The numerical difference that did appear, however, was in favor of the urban group.

5. In social adjustment the rural group had a mean of 66.90 and the urban group had a mean of 66.62. The obtained difference between the mean of the rural group and the mean of the urban group was 0.28. There was a "t" of 0.09 which was not significant at the five per cent level of confidence. Thus, there was no statistically reliable difference in social adjustment between the rural and urban groups. The numerical difference that did appear, however, was in favor of the rural group.

6. There was a correlation of 0.21 when the scores made by the urban pupils on the Test of Mental Maturity were matched with the scores of the Test of Personality. This correlation was positive but low.

7. There was a correlation of -0.50 when the scores made by the rural pupils on the Test of Mental Maturity were matched with the scores of the Test of Personality. This correlation is negative and substantially high.

**Conclusions.**—The major conclusions derived from this study are specific answers to the questions raised by the purposes of the study.

(1) There was no difference in the intelligence of the rural and urban pupils.

(2) There was no difference in the achievement of the rural and urban pupils.

(3) There was no difference in the personality adjustment of the rural and urban pupils.
(4) There was no relationship between the personality adjustment and the intelligence of the urban pupils.

(5) There was a marked inverse relationship between the personality adjustment and the intelligence of the rural pupils, that is, those who scored high on intelligence tended to score low on the test of personality.

Other conclusions which may be drawn from the data are:

(1) The literature about Negro intelligence agrees that scores made on intelligence tests give the Negro an average intelligence quotient of 75-80. Therefore, the subjects of this study are at the norm or slightly above, for Negro test Intelligence.

(2) In as much as the mean achievement showed the subjects of this study in grade placement 6.5 and 6.7, rural and urban respectively, they were at least 2.3 points below their actual grades.

(3) The rural pupils, who scored a mean of 120.83 on personality adjustment, were in the twentieth percentile and the urban group, which scored a mean of 130.58 were in the thirtieth percentile. This implies that the subjects are below the norm in personality adjustment.

Implications for Educational Theory and Practice.––The findings reported in this study emphasizes the necessity for teachers to re-evaluate their methods and materials in terms of personality adjustment of the individual pupils in order to make them happier people. The study points to the need for a testing program, in each school, which aims to diagnose the pupil's personal problems as well as their educational problems. The results of such a diagnosis should be used to determine

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what pupils need assistance in solving their problems and the needed assistance should be provided by competent individuals.

This study also indicates the importance of providing a mental hygiene program in each school. Some of those problems which confront the pupils who are below normal in personality adjustment might be successfully solved through such a program. If the school curriculum is so organized that a course in mental hygiene cannot be added, it can be taught in conjunction with other subjects, through informal discussions, by inviting available experts to talk to classes or to groups, or by conferences between teacher and pupil at some specified period during the day.

The findings further point out the need for some form of psychiatric service in all rural schools. Those students who, as a result of a testing program or as a result of teachers' observation, are found to be far below the normal in some aspect of personality adjustment, often have problems that are too complex or too difficult for the teacher to help solve. For this reason, a mental health clinic or at least a psychiatrist should be available to aid such students.

The study indicates the importance of providing opportunities for various kinds of supervised social activities for boys and girls who are on the same level as the subjects of this study in order to give them more acceptable social standards and to teach them the social skills.
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