THE SCHOLASMIC ACHIBVEMEMT OP TRANSPOREDD AND

LOCAL PUPILS

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| TRANSPORTMD AND | OKLAmoma |
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## By

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## APPROVED:



While it is impossible to list all of my obligations, there are three persons to whom I am so heavily indebted. that I would be very ungrateful if I did not here acknowledge them.

Dr. Fuerman, served as my advisor and in this capacity gave his time and effort without stint. Dr. Pruitt provided. a much needed aid in his many suggestions and valuable guidance. Dr. Reed gave his time and service with very pleasant results.

To these gracious helpers I return my sincerest thanks.
G. S. P.

## CHAPTER I

## INTRODUCTION

For many years discussions and investigations ${ }^{1}$ have been made in an attempt to determine the relative efficiency of the two types of educational institutions; namely, the dependent and independent schools. In the dependent, referred to as rural, the first eight grades are taught by one, two, three, or more teachers, according to the number of pupils. In this type of school in the State of Oklahoma the teachers are selected by the district board of education with the approval of the county superintendent of schools. Usually, there is very little attention given to the qualifications of the teachers, so far as certificates are concerned, provided that such certificates meet the state regulations.

The independent type of school is often referred to as the city school and it is operated under the supervision of the city superintendent of schools and the local board of education. Specialized teachers are eniployed for instructional purposes, and departmental work is usually carried on.

According to the objectives laid down by better authorities on education, ${ }^{2}$ the purpose of education is
I. D. Weeks, Elementary Course of Study for South Dakota, issued by the state department of education.

2
Franklin Bobbitt, How to Make a Curriculum, p. 7 .
to prepare boys and girls for the activities of every kind which make up, or which ought to make up, well-rounded adult life. Probably the greatest institution which attempts to carry out these fundamental purposes is the public school, and on its shoulders is laid the responsibility of success or failure of the child in life.

There is doubt in the minds of many whether such a great responsibility should be laid upon our great educational institutions, since there are so many outside forces which have great bearing upon social behavior. The writer thinks it would be erroneous to attempt to evaluate achievement in our schools, especially between groups of children, without first taking into consideration the social and economic status of each.

This investigations takes into consideration only the achievement of the pupils in the same grade range, as classified by school authorities, and correlates this achievement with their socio-economic status.

The objectives of every person in the field of education today should be, at all times, to try to determine which is the most effective, efficient, and economic manner of carrying on our educational process and to work toward that end for the sake of our posterity.

## PURPOSE OF INVESTIGATION

The purpose of this study is to attempt to determine, by test score, whether the student who receives his elementary education in the dependent school district is superior or inferior in educational achievement to the student trained in the independent school district. NECESSITX OF INVESTIGATION

The writer believes that it is necessary to determine whether the independent district school is superior to the dependent district school in training the present day child to meet the actual needs of life because educators, legislators, and the public in general are making attempts to reorganize our state school system into a more efficient, effective, and economic organization. The criteria which are being taken into consideration cannot be definitely determined at this time, since there is so much difference of opinion concerning attempted reorganization.

In the minds of many, the first thing to be considered in our school organization is child welfare. This study is an attempt, at least in some measure, to meet a need in this field. Since child welfare is the primary purpose of maintaining institutions of learning, no step should be taken that does not provide for the child's present and future well-being and his future progress in education. The children of today are the citizens and teachers of tomorrow and no sacrifice should be made that does not advance their general welfare.

## SUNMARY OF PREVIOUS STUDIES

One extensive scientific investigation, comparing the achievement of dependent and independent district schools, was conducted by the Foote-Committee, 1923. ${ }^{1}$ This study included five thousand pupils in one-teacher schools and ten thousand pupils in independent district schools, in several of the elementary subjects. In the survey they found that the independent district school pupils had a median advantage or $\cdot 27$ in subject achievement and .33 of a year. Better trained teachers and a longer tenure of office in the independent district sch001 were offered as possible causes of the differences. According to a report from the United States Bureau of Bulletins, 1919, ${ }^{2}$ a survey of the schools of Alabama finds that graded pupils have an advantage over the rural pupils:

Experience in all states shows that cities and towns with their more concentrated resources and cosmopolitan populations are better able and more disposed to provide ample school facilities for their children. Yet the prosperity, progress, and growth of the state are dependent upon the intelligence of the people of the farms and small commuities in a greater degree, in so far as they outnumber those in the cities. In these days of easy migration it is of very little
F. P. O'Brien, "On the Report of the Foote-Committee," Journal of Rural Education, Vol. III, p. 23.

2
"The Rural Schools of Alabama," United States Educational Bureau of Bulletins, 1919, Chapter VIII, p. 100.
value even to the cities themselves to educate city children and neglect those in the surrounding communities upon which they depend for the enlargement and replacement of their own population.
A stuay conducted by Van Waganen, 1929, ${ }^{1}$ in the state of Minnesota, involving one hundred and fifty town and city schools and more than one thousand rural schools points out:

The form of school organization seems to play a significant part in the achievement of any school. In reading for comprehension the pupils of the graded schools are more than a half year in advance of pupils in the nine months' rural schools; in reading for interpretation they are slightly in advance. In American History the eighth grade pupils of the graded schools are slightly in advance. A similar tendency holds true for the thought and information phrases of geography in the seventh grade. In arithmetic the graded school pupils are somewhat superior in the fundamental operations and decidedly superior in case of the eighth grade in ability to solve problems in arithmetic. Quite as marked is the same tendency in spelling ability. And decicedly marked is it in ability to write English composition.
A study was conducted by Wilson and Ashbaugh, 1920, ${ }^{2}$ for the purpose of comparing the reading and arithmetic abilities of pupils in consolidated and one-room schools in nine counties of Ohio. Pupils of equal intelligence were grouped together and compared. The Pindings show that out of thirty-six groups compared, all but three
M. J. Van Waganen, Comparative Pupil Achievernent in Rural, Town, and Cjty Schools, p. 71.

2
Wilson and Ashbaugh, "Achievement in Rural and Consolidated Schools," Educational Research Bulletin, Vol. VIII, p. 361.
favored the consolidated schools in a small degree.
Accosding to an investigation made by B. E. Emerson, ${ }^{1}$
1930, in his liaster's Thesis, "Comparative Educational Adhievement of Pupils in Wing and Central Schools of the
Union Graded Type of District:"
It is evident that the central school is not superior
to the wing school in educational achievement. But on the other hand the most significant differences found tend to show the wing school slightly superior. This is particularly true in the subject of language. A similar tendency holds true for all functions in grade five when we consider the averages of differences in this grade.

Inefficiency of the wing schools in educational achievement cannot be used as an argument to discontinue them. Other reasons musi be sought in order to justify the centralization or these schools, such as econoric and social advantages.

The most recent investigation was made in 1.934 by Denver Rogers ${ }^{2}$ and reported in his Master's Thesis. The investigation included the high school students of one central school and fourteen rural schools. It was found that:

Pupils who did their grade work in the independent district school made slightly superior grades in high school to the pupils whose grade work was

1
B. E. Emerson, "Comparative Educational Achievement of Pupils in Wing and Central Schools in the Union Graded Type of District," Report from Waster's Thesis, Oklahoma A. and K. College, Chap. IV, pp. 54-55.

2
Denver Rogers, "A Comparative Study of the Grades of High School Pupils, Master's Thesis, Oklahoma A. and $\mathbb{M}$. College, Chap. IV, p. 40.
done in two and three-room schools.
The reason for these differences was given as:
When we consider the fact that bus students were occasionally delayed during bad weather and that for two years some were not permitted to take first hour classes (because of the lack of busses), causing some probably to take undesirable courses, the differences in grade scores would be much less.
Noel B. Guff, ${ }^{1}$ in measuring the social and economic status of seven hundred and fifty-eight college freshmen in the Eastern Kentucky State Teachers' College and correlating this with the intelligence test and college grades has concluded:

$$
\begin{aligned}
& \text { There is a tendency for those in the higher } \\
& \text { socio-economic centiles to score higher on intelli- } \\
& \text { gence tests and to make higher college grades. } \\
& \text { An examination of individual cases also indi- } \\
& \text { cates that one would make many errors in prediet- } \\
& \text { ing scholarship from the socio-economic status. } \\
& \text { College opportunities should not be based mainiy } \\
& \text { upon the socio-economic status. } \\
& \text { WHAT PREVIOUS INVESTIGATIONS SHOW }
\end{aligned}
$$

The report of the Foote-Committee shows that the graded school pupils are slightly superior in educational achievement to the rural school pupils.

Wilson and Ashbaugh found the graded school pupils to be superior to the rural school pupils in reading and arithmetic.

In the survey of the rural schools of Alabana it was found that the graded school was slightly superior to the

Noel B. Guff, "Relationship of Socio-Economic Status to Intelligence and Achievement," Peabody Journal of Education, November, 1933, Vol. II, p. 110.
mural school.
Van Waganen, in reporting his study of a number of rurel and city schools in Minnesota, indicates the city schools are superior to the rural schools in educational achievement.

In the report made by Rogers of the grades made in high schools by rural and eity eighth grade graduates it was found that the eity school graduates were superior in every subject compared.

In Emerson's report in regard to the achievement of students in wing and central schools in the consolidated type of district, the wing school pupils were found to be superior in only a small degree.

Noel B. Cuff found that the freshmen students in Eastern Kentucky 'Teachers' College having the higher socioeconomic centile made higher grades in their college work. SCOPE OF PRESENT INVESTIGATION

Although this study includes pupils from only two independent schools and fifteen dependent schools, a much smaller number than that used by some of the other investigators, the conclusions to be reached should be comparable. Although the range of this investigation is more restricted than many, the writer has taken every precaution to keep the determining factors constant. Consequently this study has been intensive rather than extensive.

## MATERIAL USED

To carry on this investigation the following materials were used: The New Stanford Achievement Tests, Form W. (C. A. Gregory \& Co.), and a Socio-Economic Score Card designed after the one used by Verner in. Sims, University of Alabama.

Tests Used: The New Stanford Achievement Test is a battery of ten distinct and independent tests, each complete within itself. It covers the basic curricula commonly presented in the first eight grades of school, namely; reading comprehension, reading speed, arithmetic computation, arithmetic reasoning, spelling, health knowledge, language usage, history and civics, geography, and elementary science.

Bach test was given separately and scored on a numeric basis of grade norm. The test was standaraized for grades one to eight, inclusive, H (high) representing the twenty-five per cent scoring above the median, $V$ (very high) representing the highest twenty-iive per cent scoring above the median for the eight grades respectively. For comparative purpose in this problem the scores II and V have been reduced to 9.3 and 9.6 respectively and will appear as such in the tables. The number of possible scores less the ones answered incorrectly and the ones lef t out will give the number correctly answered questions or the correct score. Wach score bears a corres-
ponding grade norm. The score and grade norm are found in one operation by placing a circle around the score made on the test.

SOCIO-ECUNOMIC SCORE CARD.--The Socio-Economic Score Card draited by Verner il. Sims, University or Alabama, containe twenty-three questions in regard to the social and economic status of pupils in the grade range IV to XII.

Due to the peculiarities of the section of the country in which this score card was to be used, it was deemed advisable to omit some questions contained therein and alter others. In doing this, the number of questions was reduced from twenty-three to seventeen, all of which are applicable to the children to be examined.

The following is a score card in the exact form in which it was given:

Name $\qquad$ Age $\qquad$ Date $\qquad$
Transfer Student: Yes, No

1. Did your father attend college? yes, no
2. Did your mother attend college? yes, no
3. Did your father attend high school? yes, no
4. Did your mother attend high school? yes, no
5. Does your mother attend, regularly, any lecture courses of which you know? yes, no
6. Do you have your own room in which to stuây? yes, no
7. Do you take private lessons in music? yes, no
8. Does your mother belong to any clubs or organizations? yes, no
9. Do your father and mother attend concerts? yes, no
10. Where do you regularly spend your sumners? home, traveling
11. How often do you have dental work done? never, when needed, once a year, of tener
12. Does your family own an auto which is not a truck? yes, no.
13. How many magazines are regularly taken in your home?
14. Do you have a dictionary in your home? yes, no 15. About how many books are in your home? 1-25; 26-125; 126-500.
15. Do you have a radio in your home? yes, no.
16. What is your father's occupation?
17. (a) Does he own his business? yes, no
(b) Does he have any title with the firm for which he works? yes, no
For comparative purposes it is necessary to give each answer a numerical score. A numerical score by itself means but little; it is only when compared with other scores within the group examined and with the scores of other groups that it comes to have some definite meaning. Fo possess all of the items called for in the score card may, in one commuity, indicate but an average level of socio-economic status. For this reason comparisons are most reliable when made within the same or similar groups.

The following are the numerical values assigned to each possible answer:

Questions 1 to 9: Credit 3 for each yes; 0 for each no.

Question 10: At home, 0; Traveling, 3.
Question 11: Never, 0 ; When needed, 0 ; Once a year, 3; Oftener, 3.
Questions 12, 14, and 16: Credit 3 for each yes; 0 for each no.

Question 13: 0 (no magazines); one, 2 ; two, 3 ,
three or more, 4.
Question 15; 1-25, 2; 26-125, 4; 126-500, 5.
Question 17: Occupations are divided into five groups, according to the amount of skill required in the performance of the duties therein.

Group II: Commercial service, such as teachers, bookkeepers, salesmen, etc.
Group I: Professional men and higher executives. Group III: Artisan proprietors, petty officials, farmers, and skilled laborers with some managerial responsibility.

Group IV: Skilled laborers who work for someone else.
Group V: Unskilled workmen and common laborers of the
lower type.
Group I, Credit 8; Group II, 6; Group III, 4; Group IV, 2; Group V, 0 .

## METHOD OF INVESTIGATION

During the second week of the school year 1937-38, the entire Preshman class of Sulphur High School, having an enrollment of 240 , was assembled under the supervision of members of the teaching staff and given The New Stanford Achievement Test, Form W (C. A. Gregory and Co.)

As there is a time limit on each test, no student was allowed to work beyond the allotted time, whether or not the test was completed. Upon completion of the above test, each student was given the socio-economic score card, and asked to answer all questions to the best of his ability, leaving none unanswered.

All students were given the test and score card under like conditions, so as to avoid the possibility of difference in conditions under which the material was presented to them. Upon completion, the tests and score cards were taken by the teachers and checked carefully and a re-check made for errors in scoring. Necessary corrections were made.

For treating the data and making comparisons between the two groups, the mean and the standard deviation is considered sufficient for this problem. The formulas used were taken from Herbert Sorenson, Statistics for Students of Psychology and Education.

## CHAPTER III

## ANALYSIS AND INTERPRETATION OF DATA

DESCRIPTIONS OF GROUPS COMPARED--Of the two hundred forty freshmen students compared, one hundred twenty had received their grade school education in the dependent type of school district. This group is often spoken of as rural or transfer, the students being transported, by a daily bus, from their homes to Sulphur High School, in order that they might further their education. The distance these students are transported ranges from two to eighteen miles and the group comprises representatives from fourteen school districts, four of which employ one teacher, five employ two teachers, and five employ three teachers to conduct the school.

For the most part, the families of this group live in small or sparsely settled communities and are practically dependent upon agriculture and small-seale mining for a livlihood.

The remaining one hundred twenty students live in or near Sulphur, Oklahoma, a town of about six thousand population, located in an agricultural comnunity, which depends almost wholly upon agriculture and small-scale mining for its existence. These students received their elementary school education in the Sulphur Public Schools.

## DTSTRIBMTON OF THST BCORUS

Rendrre Conpranmoion: the following tables show the distribution of test scores nade by both the aependent and independent district students in each of the subjects tester upon.

In pable it is shown that the one hundred twenty independent aistrict students have a neen score in reading comprenension of 6.16. The standard deviation is 2.25.

The one hunared twenty dependent district students have a mean score in reading comprehension of 4.84. The standard deviation is 1.20.

The obtained aifference between the two means is 1.32 in favor of the independent aistrict studenta. This indicates that the students of the independent district are superior to those of the dependent aistrict by more than an entire year.

In the tables which follow it is anown that the students mo live in independent districts are more than an entire year in aôvace of those liviag in dependent districts.

Pable IN, in this study, shows that the independent aistrict students have a much higher socio-econoaic rating than the dependent aistrict students, and the conditions contributiag to this higher ratine effect the opportunities of these pupils for advancement. Fron facts shom in this table, we may attribute this difference, in a large part, to the vast difference in parental edu-
cation. for example, sixty-three per cent of the mothers of childeen attending independent distiotot schools had attended nigh school while only twenty-one per ean of the sural mothers had attender high school. Another ractof determining this dirference is the increased opportunk ty of the independent district sudent for travel and sor the stacy of music.
 PUTILS II READING COMPRBHETSION


SPELLING: In Table II it is shown that the one hundred twenty independent district students have a mean score in spelling of 5.55. The standard deviation is 1.35 .

The one hundred twenty dependent district students have a mean score in spelling of 4.62. The standard deviation is 1.15.

The obtained difference between the two means is .92 in favor of the independent district students.

It is evident then that the independent district students are .92, which is almost an entire year in advance of the dependent district students in spelling. We may attribute this difference to the fact that the curriculum of the independent district school makes provision for a more comprehensive plan of study and recitation, due to more adequate facilities, a larger proportionate teaching staff, and longer recitations. According to the SocioEconomic investigation made, the home of the independent district student is better equipped with library facilities and current literature. This probably accounts for the independent district students' superior knowledge of spelling.

DISTRIBUTION OF THE TEST SGORES OF TRANSPORTED AND LOCAL PUPILS IN SPELLING

| Local Pupils |  | : | Transported Pupils |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Score |  | : | Score | ! |  |
|  |  | : |  | $\vdots$ |  |
| 2.5-2.9 | 3 | : | 2.5-2.9 | : | 12 |
| 3.0-3.4 | 3 | ! : | 3.0-3.4 | $\vdots$ | 12 |
|  |  | : |  | : |  |
| 3.5-3.9 | 14 | : | 3.5-3.9 | : | 15 |
| 4.0-4.4 | 10 | : | 4.0-4.4 | ! | 20 |
|  |  | : |  | : |  |
| 4.5-4.9 | 12 | : | 4.5-4.9 | : | 15 |
| 5.0-5.4 | 17 | : | 5.0-5.4 | ! | 20 |
| 5.5-5.9 | 16 | ! : | 5.5-5.9 | : | 8 |
|  |  | : |  | : |  |
| 6.0-6.4 | 13 | : | 6.0-6.4 | : | 8 |
| 6.5-6.9 | 11 | ! : | 6.5-6.9 | : | 8 |
|  |  | : |  | : |  |
| 7.0-7.4 | 12 | : | 7.0-7.4 | : | 1 |
| 7.5-7.9 | 4 | ! | 7.5-7.9 | : | 1 |
|  |  | : |  | : |  |
| 8.0-8.4 | 5 | : | 8.0-8.4 | : | 0 |
| 8.5-8.9 | 0 | ! | 8.5-8.9 | ! | 0 |
| 9.0-9.5 |  | : |  | : |  |
| 9.0-9.5 | 0 | : | 9.0-9.5 | : | 0 |
| Number | 120 | : |  | ! | 120 |
|  |  | : |  | : |  |
| Mean | 5.55 | : |  | : | 4.62 |
| SD | 1.35 | : |  | ! | 1.15 |
|  |  | : |  | : |  |
| CR |  | : | 5.7 | , |  |

LANGUAGE USAGE: In Table III it is found that the one hundred twenty independent district students have a mean score in Language Usage of 6.34. The standard deviation is 1.25.

The one hundred twenty dependent district students have a mean score in Language Usage of 5.08 . The standard deviation is 1.36.

The obtained difference between the two means is 1.26 in favor of the independent district students.

It is evident, then, that the independent district students are 1.26, which is more than a year in advance of the dependent district students in language usage. We may attribute this difference to the fact that the home environment promotes and encourages the use of better English through constant association with parents and friends who are more highly educated. Other important factors, which cannot be overlooked, are: the radio with its educational prograns; the newspapers with studied use of practical grammar; the magazines with their power to build up an interest in correct word usage; and the guidance of well-trained parents.

III
DISTRIBUTION OF THE TEST SCORES OF TRANSPORTIED AND LOCAL
PUPIIS IN LANGUAGE USAGE


LITERATURE: It is Pound in Table IV that the one hundred twenty independent district students have a mean score in literature of 5.84. The standard deviation is 1.20.

The one hundred twenty dependent district students have a mean score in literature of 4.63. The standard deviation is 1.25.

The obtained difference between the two means is 1.21 in favor of the independent district students.

Some of the determining factors causing this difference are: The homes of the independent district students have better libraries which give much aid to the development of literature; the socio-economic card shows that these same homes have a greater number of magazines coming into them each aay or year; more newspapers are available for the independent students than for the dependent students. All of these and other reasons afford these differences.

DISTRIBUTION OF THE TEST SCORES OF TRANSPORTED AND LOCAL PUPILS IN LITERATURE

| Looal Pupils | : | $\begin{aligned} & \text { :: } \\ & \vdots: \\ & \hline \end{aligned}$ | Transported Pupils |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Score |  | : | Score | - |  |
|  |  | : |  | : |  |
| 2.5-2.9 | 2 | : | 2.5-2.9 | , | 17 |
|  |  | : |  | : |  |
| 3.0-3.4 | 1 | : | 3.0-3.4 | : | 11 |
| 3.5-3.9 | 5 | : | 3.5-3.9 | : | 12 |
|  |  | : |  |  |  |
| 4.0-4.4 | 6 | : | 4.0-4.4 | : | 14 |
|  |  | : |  |  |  |
| 4.5-4.9 | 11 | : | 4.5-4.9 | : | 15 |
| 5.0-5.4 | 23 | : | 5.0-5.4 | : | 19 |
|  |  | : |  |  |  |
| 5.5-5.9 | 21. | : | 5.5-5.9 | : | 15 |
|  |  | : |  |  |  |
| 6.0-6.4 | 19 | : | 6.0-6.4 | , | 1.5 |
| 6.5-6.9 | 8 | : | 6.5-6.9 | : | 0 |
|  |  | : |  |  |  |
| $7.0-7.4$ | 12 | : | 7.0-7.4 | , | 0 |
|  |  | : |  |  |  |
| $7.5-7.9$ | 8 | : | $7.5=7.9$ | : | 0 |
|  |  | : |  |  |  |
| $8.0-8.4$ | 4 | : | 8.0-8.4 |  | 1 |
|  |  | : |  |  |  |
| 8.5-8.9 | 0 | : | 8.5-8.9 | : | 0 |
|  |  | : |  |  |  |
| 9.0-9.5 | 0 | : | 9.0-9.5 | , | 1 |
|  |  | : |  |  |  |
|  |  | : |  |  |  |
| Number | 120 | : |  |  | 120 |
|  |  | : |  |  |  |
| Mean | 5.84 | : |  | : | 4.63 |
|  |  | : |  |  |  |
| SD | 1.20 | : |  | : | 1.25 |
|  |  | : |  |  |  |
| CR |  | : | 7.6 | . |  |

HISTORY AND CIVICS: Table $V$ shows that the one hundred twenty independent district students have a mean score in history and civics of 6.24 . The standard deviation is 1.25.

The one hundred twenty dependent district students have a mean score in history and civics of 4.93 . The standard deviation is 1.30 .

The obtained difference between the two means is 1.31 in favor of the independent district students.

This indicates that the independent district students are more than an entire year in advance of the dependent district students in history and civics. Probably, this condition is due to existing socio-economic factors whereby the independent students are permitted to hear the parents and other people discuss the problems of govermment, read the news papers, hear lectures, and many other advantages which the dependent students do not have.

DISTRIBUTION OF THE TEST SCORES OF TRANSPORTED AND LOCAL PUPILS IN HISTORY AND CIVICS

| Local Pupils | $\vdots$ |  | $\vdots$ | Pransported Pupils |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Score | $\vdots$ |  | $\vdots$ | Score | $\vdots$ |  |
| $2.5-2.9$ | $\vdots$ | 3 | $\vdots$ | $2.5-2.9$ | $\vdots$ | 10 |
| $3.0-3.4$ | $\vdots$ | 0 | $\vdots$ | $3.0-3.4$ | $\vdots$ | 12 |
| $3.5-3.9$ | $\vdots$ | 0 | $\vdots$ | $3.5-3.9$ | $\vdots$ | 9 |
| $4.0-4.4$ | $\vdots$ | 6 | $\vdots$ | $4.0-4.4$ | $\vdots$ | 14 |
| $4.5-4.9$ | $\vdots$ | 10 | $\vdots$ | $4.5-4.9$ | $\vdots$ | 14 |
| $5.0-5.4$ | $\vdots$ | 15 | $\vdots$ | $5.0-5.4$ | $\vdots$ | 21 |
| $5.5-5.9$ | $\vdots$ | 17 | $\vdots$ | $5.5-5.9$ | $\vdots$ | 13 |
| $6.0-6.4$ | $\vdots$ | 23 | $\vdots$ | $6.0-6.4$ | $\vdots$ | 17 |
| $6.5-6.9$ | $\vdots$ | 14 | $\vdots$ | $6.5-6.9$ | $\vdots$ | 3 |
| $7.0-7.4$ | $\vdots$ | 12 | $\vdots$ | $7.0-7.4$ | $\vdots$ | 4 |
| $7.5-7.9$ | $\vdots$ | 9 | $\vdots$ | $7.5-7.9$ | $\vdots$ | 2 |
| $8.0-8.4$ | $\vdots$ | 4 | $\vdots$ | $8.0-8.4$ | $\vdots$ | 0 |
| $8.5-8.9$ | $\vdots$ | 3 | $\vdots$ | $8.5-8.9$ | $\vdots$ | 0 |
| $9.0-9.5$ | $\vdots$ | 4 | $\vdots$ | $9.0-9.5$ | $\vdots$ | 1 |
|  | $\vdots$ |  |  |  |  |  |

GEOGRAPHY: In Table VI it is found that the one hundred twenty independent students have a mean score in geography of 5.94 . The standard deviation is 1.45 .

The one hundred twenty dependent district students have a mean score in geography of 4.75. The stondard deviation is 1.35.

The obtained aifference between the two means is 1.19 in favor of the independent distriet students.

The inferiority of the dependent district student in geography can well be attributed to his lack of opportunity for travel and to a deficiency in supplementary material, such as maps and stories of geographicsl nature. The socio-economic table shows that the parents of country children have traveled less then parents of city children. Since people talk most about the subject with which they are most familiar, it is natural to suppose that the child in the country home would hear little about the world and its component parts.

VI
DISTRIBUTION OF THE TEST SCORES OF TRANSPORTED AND LOCAL
PUPILS IN GEOGRAPHY

| Local Pupils |  | : : | Transported Pupils |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Score |  | : | Score | : |  |
|  |  | : |  | : |  |
| 2.5-2.9 | 5 | : | 2.5-2.9 | : | 15 |
|  |  | : : |  | : |  |
| 3.0-3.4 | 3 | : | 3.0-3.4 | : | 10 |
| 3.5-3.9 | 3 | : | 3.5-3.9 | : | 16 |
|  |  | : |  | : |  |
| 4.0-4.4 | 7 | : | 4.0-4.4 | : | 14 |
| 4.5-4.9 | 13 | : : | 4.5-4.9 | : | 16 |
|  |  | : |  | : |  |
| 5.0-5.4 | 14 | : | 5.0-5.4 | : | 12 |
|  |  | : |  | : |  |
| 5.5-5.9 | 20 | : | 5.5-5.9 | : | 14 |
| 6.0-6.4 | 13 | : | 6.0.6.4 | : | 9 |
|  |  | : |  | : |  |
| 6.5-6.9 | 14 | : | 6.5-6.9 | : | 9 |
| $7.0-7.4$ | 9 | : | 7.0-7.4 | : | 0 |
|  |  | : |  | : |  |
| $7.5-7.9$ | 8 | : | $7.5-7.9$ | : | 4 |
|  |  | : |  | : |  |
| 8.0-8.4 | 6 | : | 8.0-8.4 | : | 0 |
| 8.5-8.9 | 2 | : |  | : | 1 |
| 8.5-8.9 | 2 | : | 8.5-8.9 | : | 1 |
| 9.0-9.5 | 3 | ! | 9.0-9.5 | : | 0 |
|  |  | : |  | : |  |
|  |  | : |  | : |  |
| Number | 120 | : |  | : | 120 |
| Mean | 5.94 | : |  | : | 4.75 |
|  |  | : |  | : |  |
| SD | 1.45 | : |  | : | 1.35 |
|  |  | : |  | : |  |
| CR |  | : | 6.5 | : |  |

ARITHMETIC: It is shown in Table VII that the one hundred twenty independent district students have a mean score in arithmetic of 6.06. The standard deviation is 1.10.

The one hundred twenty dependent district students have a mean score in arithmetic of 5.31. The standard deviation is 1.30.

The obtained difference between the two means is .75 in favor of the independent district students.

Some of the determining factors causing this difference are: The superior opportunity of the independent district students to form concepts through general observation; the chance to exert individual initiative in making small purchases for the home, thus developing the child's sense of commodity values; the privilege of taking active part in clubs which usually exist in larger schools. The parents of independent district students are better able to aid their children than the parents of dependent district stuaents, because of their education.

## VII

DISTRIBUTION OF THE TEST SCORES OF TRANSPORTED AND LOCAL PUPILS IN ARITHMETIC


Composim mbaf: The rindings of this table show that the one hunded twenty independent district students have a mean soore of the composite mean or 5.30 .

The dependent distriat students have a composite mean score of 488.

Fhe obtained difference between the two composite neak scores 1.13 in favor of the indepencent district stuQents.

The results inaiecte that the incependent aistriet stubente are superior to the dependent district students in each subject tested. There mast be some cause, other than mative ability, for this difference. In a study of this mature, one must have facts, not guessos, to form conclusions. The evicence points to the generel superiority of the independent district students in socioeconomic status. Such benne the case, we can form only ore conclusion; the ohila's sociomeconomic status has a dipeot bearing on his achievement.

## VIII

MBANS SCORED BY THE LOCAL AND TRANSPORTED PUPILS IN RACH OF SEVEN SUBJIBCIS TESTED UPON AND THE COMPOSITE MEAN


SOCIO-ECONOUIC STATUS OF ALL STUDENTS EXANINED: Table
IX lists the questions used in the socio-economic study. The questions were stated in such a way that each could be answered with either yes or no. The per cent of independent and dependent district students answering in each of these cases is shown.

This table shows that the fathers and mothers of the independent district students are better educated, by far, than those of the dependent district students. It also shows thirty per cent of the independent district students taking lessons in music, while not one of the dependent district students takes music lessons. Looking further, we find two-thirds of the parents of the independent district students having automobiles, while less than onethird of the parents of dependent district students have cars. While cars are not essential to a good, clean life, they are an asset to any family in educating their children. Cars afford a means of travel that permits the occupants to view the surrounding objects and make new concepts in connection with those already formed. One of the most important factors contributing to this condition is the home library. This investigation shows that the town home is far in advance of the country home in library vacilities. Still another item which should not be overlooked is the radio. Table IX shows that sixty per cent of the independent district students
have racios in their home, while only eleven per oent g , MA the rurat stuants have racios available. Redio frberans $R$ Y have cone to be great educational aius and their QGTHe 271939 mast not be under-estimated.

IX
SOCIO-ECONOMIC STATUS OF ALL STUDENTS EXAMINED

|  | Question ! | Local | : | Transported |
| :---: | :---: | :---: | :---: | :---: |
|  | Did your father attend college? | 22\% | : | 5\% |
|  | Did your mother attend college? | 18 | ! | 4 |
|  | Did your Pather attend high school? : | 54 | : | 17 |
|  | Did your mother attend high school? : | 63 | : | 21 |
|  | Does your mother attend, regularly, : any lecture courses of which you know | 36 | : | 9 |
|  | Do you have your own room in which to study? | 16 | ! | 2 |
|  | Do you take private lessons in music? | 30 | : | 0 |
|  | Does your mother belong to any clubs: or organizations? | 58 | ! | 12 |
|  | Do your father and nother attend concerts? | 66 | : | 14 |
|  | Where do you regularly spend your summers? | 31 | ! | 11 |
| 11. | How often do you have dental work? | 68 | ! | 15 |
|  | Does your family own an auto which is not a truck? | 83 | : | 19 |
|  | How many magazines are regularly taken in your home? | 78 | ! | 26 |
|  | Do you have a dictionary in your home | 93 | : | 48 |
| 15. | About how many books are in your hom: | 52 | ! | 14 |
|  | Do you have a radio in your home? | 60 | : | 11 |
|  | What is your father's occupation? | 74 | ; | 57 |
|  | (a) Does he own his business? : | 11 | : | 19 |
|  |  |  | ; |  |
|  | (b) Does he have any title with the : Pirm for which he works? | 23 | : | 4 |

## SUNLARY AW CONCLUSIONS

Tn makins this study, due consiceration was ejven to ALL STUDILS AVATLGSLB IS THIS TIRLD. The data examined, as well as the inding involved here, have been checked under severel headings, as shown in tables incorportted in the body of this thesis. These heve been found to agree substentially in the points under consideration.
whe outcone of this experiment seems to prove that, educstionally speaking, the sooio-econonic status of the chila hes a more direct bearing upon his achievenent then has kere-to-fore been coknowledged by thinkers in the school world. also, it seens to show that ohilaren in independent districts, on the average, represent a higher socio-economie status then twose in the dependent districts. The teste eiven proved the students from indepenamb oistricts to be 1.25 graces ahead of those from deperaent aistricts.

The witer eeels that the dinaines made, in his small oontribution to this fiend of investigetion, have contributed something toward better understending of how to deal with pupils in his own situation. Fhe great leaders in the ficld of education today are putting aore and more emphasis upor the study of the chile, bis needs, his interests, and has telents.

Peachers, in respondins to the advioe of speotalists to study children more particulariy, have endesvor-
ed to accomplish this through the medium of the observation of school room behavior. While this has accomplished. a great deal in the improvement of text book material, school room procedure, and remedial work, it has not, the writer believes, done all that the specialists had a right to believe that it would. This is because the child in the school room is more or less in an artificial environment and the teacher is not enabled to see the individual differences, as they really exist.

No conclusion, however true and valuable it may be, is of any use to an individual unless applied specifically to his own situation. The writer feels that he may apply the knowledge gained to his work in the following manner; tables may be made, of the type used in this thesis, based upon questionnaires sent out to the individual homes so that the teacher may note the socio-economic status of each of the students enrolled in his classes. Hany students are transfermed from dependent districts. Having beiore him the record of each of his students and with the findings of this thesis in mind, he can, by a system of individual conferences, at least in a measure, supply some of the necessities, found to be missing (through loaned material, directed reading, and extracurricular activities.)

A survey should accomplish several things, namely; the pointing out of some exisiing problems, application of this problem to a definite, existing situation,
and forecast needed changes to solve the problem. The first two of these, in the opinion of the investigator, have been answered and he ventures to forecast the adoption of extra-curricular studies and individualization of programs as a means of caring for the existing deficiencies.

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