A COMPARISON OF TRANSFER AND NON-TRANSFER STUDENTS IN THE HIGH SCHOOLS OF POTEAU, PANAMA, AND SPIRO, OKLAHOMA

A COMPARISON OF TRANSFER AND NON-TRANSFER STUDENTS IN THE HIGH SCHOOLS OF POTEAU, PANAMA, AND SPIRO, OKLAHOMA

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Preface

Education in America has made rapid progress, but there is an agreement of opinion that all boys and girls do not have an equal opportunity to develop their mental faculties.

The supposition that students who attend town and village schools achieve more than those who attend rural schools is rather prevalent. It is with this idea in mind that this investigation is made. Many comparisons have been made of students in rural schools, but very few have attempted to find whether or not the pupils who graduated from rural grade schools achieve as much in high school as those boys and girls who graduated from the grade schools of the city systems.

This study will attempt to furnish scientific information on this subject; to suggest possible causes for existing conditions; and to furnish data that will show how this discrimination may be prevented.

Acknowledgments

The author is particularly indebted to Mr. C. B. Frederick, Principal of Poteau High School, Poteau, Oklahoma, Mr. E. L. Costner, Superintendent of Panama Public Schools, Panama, Oklahoma, and Mr. O. W. Jones, Superintendent of Spiro Schools, Spiro, Oklahoma for supervising the testing program in their respective schools and furnishing data from their school records.

Too, the author expresses his sincere appreciation to Professor Haskell Pruett for his sympathetic interest and worthy criticism in the writing of this thesis. To Professor M. R. Chauncey and Professor C. L. Kezer grateful appreciation is extended.

C. F. V.

To My Wife and Daughters, Mary Gayle and

Martha Janet, this

Thesis is Affectionately Dedicated

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CHAPTER I

INTRODUCTION

Education in America has progressed rapidly during the last several years, however, much remains to be done before all boys and girls may be assured of an equal opportunity to develop their mental faculties. Since there is prevalent in the world today so much agitation against democracy, it becomes mandatory, if we preserve our heritage, to teach all American children its merits. The business in the United States which involves the greatest personnel of employees and has for its raw materials the boys and girls, who will in the future guide the destiny of this great country is education.

Educational leaders of the state and nation realize their responsibility and the necessity of preventing discrimination between children of the rural sections with those who live in cities or towns. However, the economic depression has made it more difficult to finance our institutions of learning. Too, the attitude of the school patrons of the rural areas is such that it is necessary to sell the idea of equal opportunities in education to them. They must be convinced that it is to their advantage to dispense with "The Little Red Schoolhouse" and organize a

larger unit of learning or avail themselves of the facilities of the city schools. Generally speaking, the Oklahoma farmer is conservative and he must be assured that the laborer is worthy of his hire and the expenditure will yield splendid dividends.

Psychology teaches that it is better to create in a child a desire for a certain thing than to force it upon him. Educational leaders must use the same psychology on the school patrons and gradually show them the advantages of the larger units of learning.

It is the desire of the author, through the result of this study, to be able to add to the vast amount of information necessary to sell to the public the idea of equal educational opportunities for all. Evidence is needed to prove that there is very little difference in the mental abilities of rural and town or city children, and only because of the inequality of opportunity, the town or city child has greater achievement.

DEFINITION OF THE PROBLEM

The purpose of this thesis is to determine the comparative achievement, mental ability, attendance and classification of transfer and of non-transfer pupils.

LIMITATIONS OF THE STUDY

This study will be limited to one-hundred two transfer students and one-hundred fourteen non-transfer students chosen as equally as possible from the High Schools of Poteau, Panama, and Spiro, Oklahoma for the year 1937-38. The study will include a comparison of mental ability, achievement, attendance, and classification.

JUSTIFICATION

Justification of the study is based upon the proposed educational plans of the State of Oklahoma. Some of the more progressive states educationally are now using a more just and economic plan of organization than the small district system, as a basis for dispensing school funds. Studies will have to be made in order to determine the most ideal plan for furthering education.

This study will attempt to answer the following questions:

1. How does the achievement of transfer and non-transfer students vary and compare with each grade and group?

2. How does the attendance of transfer and non-transfer pupils compare?

3. How does the mental ability of transfer pupils compare with that of non-transfer pupils?

4. How does the classification of transfer pupils compare with that of non-transfer pupils?

SOURCE OF DATA

Some of the data were in existence and some had to be created. Data were taken from school records showing the name of the pupil, birthday, grade in school, and the attendance.

The created data were obtained by supervising a testing program. The Detroit Intelligence test, and The Sones-Harry High School Achievement Test were given.

This was a survey test consisting of four divisions, namely, Language and Literature, Mathematics, Natural Science and Social Studies.

An age-grade distribution of both transfer and non-transfer students was made from the dates of birth in the office records.

ADEQUACY AND RELIABILITY OF DATA

One-hundred two transfer and one-hundred fourteen

non-transfer students were given the tests. Both groups are approximately the same in number.

The tests given are very reliable and were recommended by Dr. Chauncey at the suggestion of Dr. Haskell Pruett, the advisor of this study. Complete instructions accompanied with each test and they were given under the direct supervision of the Principal of each school. The papers were scored according to directions by the potential author.

The students who were examined were chosen according to proven scholastic ability and compose an average group from each school.

The transfer students are those who graduated from rural grade schools in the hinterland of either Poteau, Panama or Spiro, Oklahoma. Agriculture is the principal occupation of the area, however, some coal is mined near Poteau and Panama.

The non-transfer students are those who attended grade school in the city schools of either Poteau, Panama, or Spiro, Oklahoma.

There are twenty rural schools surrounding these towns from which the students of the transfer group were taken. Table I shows a distribution of these schools according to the number of teachers.

DISTRIBUTION OF RURAL SCHOOLS ACCORDING TO THE NUMBER OF TEACHERS

Table I

Number and Percentage of Schools	Number of Teachers 1	2	3	4	Totals
Number of Schools	5	8	4	3	20
Schools Percentage	25	40	20	15	100

NUMBER OF TRANSFER AND NON-TRANSFER PUPILS IN EACH GRADE TAKING TESTS

Table II

Kind of Pupil	Grade 9	10	11	12	Total
Transfer	25	25	29	23	102
Non-transfer	29	27	25	33	114
TOTAL	54	52	54	56	216

TABLE I

This table shows that five of the twenty schools or twenty-five per cent have only one teacher; eight of the group, or forty per cent are schools of two teachers each, and three of the twenty schools, or fifteen per cent have four teachers each, while four of the number, or twenty per cent have three teachers each. There is a total of forty-five teachers employed in the twenty schools, or an average of two and one-fourth teachers for each school unit.

Table II shows the distribution of the transfer and non-transfer students taking the test according to the grade or class enrollment.

TABLE II

The above table shows a difference of four freshmen, two sophomores, and ten seniors with the non-transfer pupils exceeding the transfers. However, in the junior class the

transfer students outnumbered the non-transfer group by four. A total of two-hundred sixteen students took the test and there was a difference of twelve in the two groups.

SUMMARY

1. The problem of this study is to determine the comparative achievement, mental ability, attendance, and classification of transfer and non-transfer pupils in the High Schools of Poteau, Panama, and Spiro, Oklahoma.

2. The study is limited to thirty-seven transfer students at Panama, twenty-eight at Poteau and thirty-seven at Spiro, Oklahoma.

Thirty-six, forty-one, and thirty-seven non-transfer students took the tests at Panama, Poteau, and Spiro respectively.

3. This study is justified on the basis of the proposed educational plans of the State of Oklahoma. Are the rural boys and girls getting an equal chance with the town and city children in regard to education?

4. The data were obtained by giving the Sones-Harry Survey Achievement Test and the Detroit Intelligence Test and by taking attendance and birth dates from the office records.

5. The data are reliable because all the students took the tests under ideal supervision and the author did the scoring.

6. Transfer students are those who graduated from rural grade schools in the hinterland of either Poteau, Panama, or Spiro, Oklahoma.

7. Non-transfer students are those who attended grade schools in the city or town schools.

CHAPTER II

WHAT OTHER STUDIES REVEAL ON THE STUDY OF RURAL EDUCATION

There are today in the American Public School system many inequalities. To what extent these discrepancies exist between rural and city or town children and the result of these differences on the achievement of the rural student is a logical field for study.

The majority of rural schools have one or two teachers who are supposed to teach the entire eight grades. There are quite a number of graduates of these schools who desire to avail themselves of the privilege of transferring to the high school in town in order that they might continue their education. How does the achievement, attendance and mental age of these pupils compare with that of their classmates who received their elementary education in the grade schools of the city or town? Is it difficult for the transfer students to adjust themselves to the environment of the highschool or are they possessed with such dynamic personalities that the town students are confronted more seriously with the problem of orientation?

COMPARATIVE PROGRESS

Despite the fact that the work of Mr. Betts is old, he rather well pictures the present day rural situation in

his publication which was copyrighted in nineteen hundred thirteen. He says,

> "It (the rural school) has as good material to work upon in the boys and girls from the farm as any type of schools in the country. They come of good stock; they are healthy and vigorous; and they are easily trained to serious work and responsibility. Yet a very large proportion of these students possess hardly the rudiments of an education when they quit the rural school. Many of them go to school for only a few months in the year, compulsory education laws either being laxly enforced or else altogether lacking. A very small percentage of the children of the farm ever complete eight grades of schooling and not a large proportion finish more than half this amount. This leaves the child who has to depend upon the rural school greatly handicapped in education. He has but a doubtful proficiency in the mechanics of reading and has read but little. He knows the elements of spelling, writing and numbers but has small skill in any of them.
>
> He knows little of history or literature, less of music, nothing of art and has but a superficial smattering of science.[1]

Further verification of the statement that little progress has been made since Mr. Betts' statement was published is taken from an article written in nineteen hundred twenty-eight by Timon Covert regarding the rural schools. Mr. Covert recently finished a nation wide study of comparative achievement of students from one teacher and larger schools. He says,

> "If a child is obliged to attend a one teacher school, he is for the most part, denied the opportunity for work in music and other fine arts and in household and industrial arts. His elementary school life is limited almost entirely to the drudgery of learning simple fundamentals; but in these subjects in which he may be expected to make his best showing

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1. George Herbert Betts, "New Ideals in Rural Schools" Houghton Mifflin Co., Boston, 1913, pp. 17-18

inasmuch as his work is practically limited to them, he falls far behind the average city child, being nearly two years behind at the end of his elementary course."[1]

Even as late as nineteen hundred twenty-three the joint committee in charge of the rural school survey of New York State reported that:

"The rural people of New York State are in a great many cases--one might say in a majority of cases--opposed to consolidation of schools and even to the redefining of district lines. To be sure, the farmer knows that the little school house cannot carry his child very far on the road to knowledge; it certainly cannot give the child a high school education. He knows that a little school with small attendance is very expensive per pupil. He knows that the equipment is meager, and the teacher usually less qualified for work than the teachers in the neighboring towns. But the farmer will resist to the bitter end any movement on the part of the Superintendent or the State to set up a well equipped graded school, through compulsory consolidation. In most communities the people are not in an attitude of mind to consider the question as applied to their community on its merits." [2]

There are some outstanding exceptions to the condition described above. A transition has been taking place with increasing impetus during the last decade. Schoharie County, a small area located on the northern fringe of the Catskill mountains stands in the front rank of counties in the Empire State that have blazed a new trail in school administration. Table III pictures the public school organization of Schoharie county in 1855.

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1. Timon Covert, "Educational Achievements of One Teacher and Larger Schools", Bulletin 15, Dept. of Interior, Washington D. C., 1928, p. 17

2. Elwood P. Cubberly, "An Introduction To The Study of Education," Houghton Mifflin Co., Riverside Press, Cambridge, p. 395

THE SCHOOL ORGANIZATION OF SCHOHARIE COUNTY, NEW YORK IN 1885

TABLE III

Number schools	183
Number teachers	183
Number pupils	8370
Average number pupils per school	45.7
Tax Income	$7578.00
Public funds	$4690.00
Total for schools	$12268.00
Average amount for each school	$67.03
School libraries	170
Volumes in libraries	16916
County population	33070

TABLE IV

PUBLIC SCHOOLS IN SCHOHARIE COUNTY, NEW YORK, 1938

Number of central rural schools	7
Number of one room school inside central rural school	32
Number one room schools outside central rural school	31
Number two room schools	2

TABLE V

COMPARISON OF SCHOOL SUPPORT IN SCHOHARIE COUNTY, NEW YORK, 1855-1938

	1855	1938
Teachers	183	242
Pupils	8370	4322
Total valuation	not rec'd	$18.182,428.97
Number schools	183	70
Local Tax Support	61%	21%
State aid	39%	79%
Average teachers per school	1	3.45
Largest number teachers per school		9

It is gratifying that educators early in the nineteenth century were aware of the necessity of a larger unit of school. Too, we know that as early as eighteen hundred ninety, Salt Lake City, Utah saw the advantages of consolidation and reorganized its several districts under one school board. On December 1, 1904 they resolved to consolidate the the schools.

Consolidation had become so popular with school leaders and the legislature that in nineteen hundred fifteen the Utah legilature made consolidation compulsory in every county in the state.

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1. Edmund Northroap Moot, "County Transitions" Nations Schools Vol. 22, No. 1, July 1938, p. 35-36.

The accompanying table shows how from 1907-21 the schools advanced in Box Elder school district which is nearly as large in area as the state of Massachusetts. Comparisons of Progress it will be noted were made in 1921 covering fourteen years, a period sufficiently long to test the effects of consolidation. The comparisons show that during the first fourteen years of consolidation, while the population of the district had increased fifty per cent, the average daily attendance in school increased eighty-two per cent. The total promotions in all grades increased more than 100%; the eighth grade 200%; and the ninth more than five hundred per cent. [1]

It is apparent that the information listed should serve as evidence in favor of consolidation.

Widespread publicity has been given the small one teacher schools of the State of Kansas. Recently, one metropolitan newspaper devoted one entire page of rotogravure pictures, accompanied by a long descriptive article of a one teacher school in Cherokee county having only one pupil. Kansas answered her critics by passing two new laws which offer inducement to eliminate one room schools.

On the basis of statistical evidence these new laws have been helpful. From 1918 to 1928, four-hundred

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[1] Charles H. Skidmore, "Progress Follows Consolidation" The Nations Schools, Vol 22, No. 2, Aug. 1938, pp 14-15

thirty one room schools were closed. The following table shows the number of districts that have not maintained their own schools and have sent children to other schools.

Year	Districts with closed schools sending children elsewhere.	Increase over Last Year
1928-29	227	
1929-30	257	30
1930-31	260	3
1931-32	276	16
1932-33	281	5
1933-34	278	
1934-35	473	195
1935-36	537	64
1936-37	840	303[1]

This table proves conclusively that although the process is slow an added zest became evident after the new law of 1935 was passed. Harry A. Little of the Georgia State Department of Education says,

> "There are in the United States today a great number of small public schools despite one hundred years of advocacy of larger consolidated units. This situation is due in part to the educational philosophy of school officials and to the traditional attitude of school patrons, but it is also due in part to the lack of scientific information as to the exact results to be expected from consolidated schools."

W. E. Sheffer, "Kansas Answers Its Critics" The Nation's Schools, Vol. 22, No. 4, Oct. 1938, p. 33

HOW SCHOOLS OF BOX ELDER DISTRICT, UTAH ADVANCED UNDER CONSOLIDATION FROM 1907 to 1921.

TABLE VI

	At consolidation 1907	1921	Percent
Census 6-18 yrs. 3830		5747	50
Average daily attendance	2601	4735	82
% census in daily attendance	68	82	21
Enrolled - 9-12	63	865	1273
Total promotions	2375	4910	106
8th Grade promotions	135	428	202
9th Grade promotions	63	432	585
High School Graduates	0	68	All

At present there are 127,244 local school districts in the United States with an average of 200 pupils enrolled in each unit. Thousands of these schools, however, have enrollments of less than ten children and cannot afford a complete program of education with so few pupils. There are 424,000 school board members and about 839,879 teaching positions or one-half as many school board members as teachers.

The study reveals that in two hundred thirteen of two hundred twenty three counties reorganization will result in an actual decrease in clear cost. The average decrease in cost for the entire two hundred twenty three counties being 7.8 percent of original cost. If only the rural schools are included in basal percentage, the mean average decrease is 9.2 percent--Mr. Little states,

> "My study reveals quite satisfactorily that any increased cost that may have resulted over the country is largely due to a better school program, rather than to consolidation of schools."[1]

Transportation is another problem confronting proponents of consolidation, however, it has been found that there are many factors which cause transportation costs to vary. Evans found that,

> "The average cost per bus mile or per pupil mile is of little value--comparisons of the total cost of

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1. Harry A. Little, "Do Consolidated Schools Cost More?" Dept. of Ed. Ga. S. C. for Women, The Nation's Schools, Vol. 14 July-Dec. 1934 p. 24, No. 6.

projects of a given size are more valid. Much of the expense involved is not dependent on mileage."[1]

In an article appearing in a recent number of "School Life", Walter H. Gaumnitz, senior specialist in rural education problems, United States offices of Education discusses at some length the elimination of the one teacher school during the last twenty years. It is apparent that this type of school is still an important educational institution in the United States and that any adequate program of education must give due weight to this fact. The following paragraphs are quoted from Mr. Gaumnitz's article:

> "Turning our attention to the statistics it will be seen that in twenty years from nineteen hundred sixteen to thirty-six, the total number of one teacher schools has been reduced from 200,094 to 132,831. This is a reduction of almost exactly one to three. In 1916 the one teacher schools constituted 71.1 per cent of all the schools in the United States; in 1936 they were only 56.7 per cent of the total. Considering the problem in terms of all the teachers employed in the public schools of the nation, the data shows that twenty years ago nearly one third of them were in one teacher schools; at present only about one in seven is employed in such schools. Appraising the place of these schools in the total educational picture on the basis of teachers, therefore, each of which may be thought of as a classroom, it is clear that the one room school is at present less than half as important numerically as it was two decades ago. The growth in the size of the larger schools has increased the total teaching staff much faster than it has been reduced by the abandonment of these small schools--There can be no doubt that in whatever way we may look at the matter, the one teacher schools

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1. Frank. O. Evans,"Factors Affecting the Cost of School Transportation in California", U. S. office of Education, Bulletin no. 29, 1930,p. 21, Bureau of Publications Teacher's College, Columbia University.

> have during the past twenty years been passing out of the educational ladder very rapidly--However, they still constitute 62.8 per cent of all those located in rural communities. They still enroll close to three million American boys and girls. It must, therefore, be said with emphasis that the small school still forms a very important segment of our public school system and that it should be treated as such--To regard this institution as a thing of the past no longer justifying the time and effort of school leaders to seek improvement would seem from the statistics and arguments available to be an erroneous point of view and a short sighted policy."[1]

It is a foregone conclusion that the rural one room school is a present day problem for educators. The enormity and seriousness of the question is brought more vividly to the attention of school men when it is known that,

> "Sixty per cent of the next generation's voting power is in the rural schools today and probably one half of these will never attend a better school."[2]

The preservation of a democratic form of government is the desire of every loyal American. Therefore, if the majority of the voters of tomorrow are in the rural schools and if education is the criterion upon which this preservation depends, it becomes mandatory of the American people to improve the schools in the rural areas.

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1. W. H. Gaumitz, "One Teacher School in American Education System" Elem. Sch. Journal, 1938, pp. 649-50.

2. J. F. B. Waters, "A Study of Select Elementary Schools of Cleveland County, Oklahoma."
A Study in Rural School Finance and Organization
Masters Thesis, O. U. Norman, Okla. 1930, p. 58

"The problem of how to redirect the rural schools and make them efficient rural social institution is not a simple one, and the difficulties in the way of such a simple one and the difficulties in the way of such an accomplishment must not be underestimated," says Elwood P. Cubberly. "The decreasing attendance of the rural schools; the peculiar attitude of mind of the farm population; due to the lack of social contact and cooperation; the inadequate school equipment; the poorly trained teachers, and the temporary nature of their employment; the low salaries; and meager financial support; the almost total absence of the supervision of a constructive and helpful type; and the lack of a unity of effort and a definite program for helping are a few of the chief difficulties which beset the path of those who would improve and transform the rural school." 1

1. Elwood P. Cubberly, "Rural Life and Education" Revised and Enlarged Edition, Riverside Textbooks in Education, Houghton Mifflin Co., p. 172-173.

COMPARATIVE ACHIEVEMENT

School patrons who live in rural districts will argue that students in their school achieve as much as those boys and girls who attend the grade school in town. The purpose of this study is to furnish information with arguments both for and against this statement.

L. J. Bennett, who conducted an extensive survey of educational achievements in rural schools of Miami County, Ohio found that the consolidated schools can be made more effective than the one room school even for the teaching of the traditional subjects. Too, he concluded that the village schools are consistently better than those in the rural sections.[1]

M. J. Van Wagenen, assistant professor of educational psychology, University of Minnesota, made a comparative study of pupil achievement in rural, town, and city schools. The survey covered some of the schools in the school districts in nearly every county in the State of Minnesota and was made extensive enough to include from 1500 to 2500 in eight month rural schools in each of six groups. There were approximately 2500 in eight month rural schools. There were approximately 1500 in nine months schools, and about 2000 each in four groups representing the total of six groups,

1. L. J. Bennett, "The Use of Tests and Measurements In Rural Schools" N. E. A. Addresses and Proceedings, 1922, p. 1167

of town and small city schools. The following statements are some of the results Van Wagenen found in his survey:

> "The form of school or class organization seems to play a significant part in school achievement. In reading for comprehension, the pupils of the graded schools are more than half a year in advance of the 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 in the information phase and decidedly in advance in the thought phase, especially the boys. A similar tendency holds true for the thought and information phases of geography in the seventh grade. In arithmetic, the graded pupils are somewhat superior in the fundamental operations and decidedly superior in the case of the eighth grade in ability to solve problems. Quite as marked is the same tendency in spelling ability, and decidedly marked is it in ability to write English Composition." [1]

This study was very reliable and the results are in favor of the graded schools. It is logical to expect that conditions existing in Minnesota are true in a majority of cases in every state. More adequate equipment and better qualified teachers determined the difference. Van Wagenen further states,

> "The evidence is clear that while mental ability is at the basis of school achievement, teaching conditions also play a significant part." [2]

A more thorough investigation of Mr. Van Wagenen's study shows that the seventh grade rural pupils are approximately four months younger mentally than the same grade of the town and city pupils. The eighth grade rural students

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1. M. J. Van Wagenen, "Comparative Pupil Achievement in Rural, Town, and City Schools." p. 71
2. Ibid p. 71

are about six months younger mentally than the town and city students of the eighth grade. It is evident from this that rural students repeatedly finish the eighth grade considerably younger mentally than the town and city pupils. Using this information as a basis, Van Wagenen thinks should as large a proportion of rural pupils as town and city pupils eventually enter High School the discrepancy between the attainments of the two groups would be more in favor of the town or city children than his evidence has shown. [1]

A comparative study of city school children and rural students was made by Clifford Andrew Strozier, in 1931. He compared the pupils of the fifth, sixth, seventh, and eighth grades of Newkirk with and equal number of pupils of the same grades of selected rural schools of Kay County, Oklahoma in which Newkirk is located.

Strozier concluded from the results of his study that in the fifth, sixth, seventh, and eighth grades, the city students have greater native abilities and have achieved more in school than have the rural children of the same grades. The rural school children are older chronologically than the city children.[2]

Mr. Strozier's study is in Oklahoma schools and the city students excelled both mentally and scholastically.

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1. Op. Cit. M. J. Van Wagenen p. 73
2. Clifford Andrew Strozier, "A Comparative Study of City School Children and Rural School Children," Masters Thesis, O. U. Norman, Oklahoma, 1931.

It would be presumptuous to assume that since it is true in one situation, the same result would occur, if studies were made over the entire state. However, the evidence was rather conclusive in this experiment.

Chapman, Crosby, and Eby made a comparative study of educational measurement of one room rural and city school children of northern Ohio. An unselected group of seventy-one children from one room rural schools, ages distributed from eleven to thirteen years was compared with a similar number of students in the city of Cleveland by administering nine psychological and educational tests. The following information was taken from their conclusions.

> "In the tests of abilities which were independent of school training, namely, cancellation, substitution, opposites, spelling, there were but small differences in the attaiments of the two groups; but in the remainder of the tests, namely, information, addition, writing, hard directions, and compositions, the rural children were notably inferior. The inferiority seems to be directly proportionate to the extent that the tests were complex and school conditioned. In addition and composition, the inferiority was that of two to two and one half years. The variability of rural school children was slightly greater than that of city school children in tests independent of school training and much greater in tests dependent upon school training." [1]

The information furnished in their study shows conclusively that the rural school children have achieved less than city boys and girls in their respective grades.

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1. Chapman, J. Crosby and Eby, H. L., "A Comparative Study of Educational Measurements of one room Rural and City Schools," Journal of Ed. Research, Oct. 1920, p. 636-46.

L. V. Cavins, in his survey of education in West Virginia, found that in the elementary grades the one and two room schools are somewhat below the national standards, except in spelling, while the city and consolidated schools were almost equal to the standards in each subject. [1]

More specific information regarding the number of rural students who were below the national standard was given by J. F. Kelly in his study, "Retardation in Rural Schools." According to Mr. Kelly, thirty-one per cent of those in the seven months schools were below the national standards. [2]

In 1923, the Department of Rural Education of the National Education Association carried out a nation wide t esting program in which 80,000 papers in consolidated and one room schools were obtained. L. M. Favrot says,

> "Bothe grade and age achievement differences are in favor of the consolidated school; the general median differences in both cases being 33 per cent of a year's work. In other words, the consolidated school child in the grades three to eight is approximately fifty-seven days ahead of the one room school child in the five subjects in which these children had been tested. The students were tested in Reading, Writing, Spelling, Arithmetic, and Language." [3]

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1. L. V. Cavins, "A Survey of Education In West Va." State Dept. of Ed. Charleston, W. Va. 1929, 160 pages.
2. F. J. Kelly and A. K. Loomis, "Retardation in Rural Schools" Journal of Ed. Research, Vol. 1, 1920.
3. L. M. Favrot, "Discussion of the Report of the Committee on a Comparative Study of Instruction in the Consolidated and One Teacher Schools," N. S. A. Addresses and Proceedings, 1924, p. 667-672.

The reliability of this survey is undenied because of its extent. Eighty thousand papers were scored. Samples were taken from various sections of the nation and the result was practically the same as that of those studies which were listed as limited to schools within one county or even or smaller units of territory.

Lloyd W. Grigsby conducted a testing program in Spiro, Oklahoma, High School. He gave psychological and achievement tests to eighty-four non-transfer students and eighty-one transfer students. The tests were reliable and were given and scored according to directions. The following excerpt was taken from Mr. Grigsby's conclusions:

> "The non-transfer pupils have a higher native capacity than the transfer pupils. Eleven and one-tenth percent of the transfer pupils were below normal in mental ability compared with two and five-tenths percent of the non-transfer pupils.
>
> The results of a battery of ten tests given under identical conditions show that the non-transfer pupils rank higher in achievement on every test than the transfer pupils. The following shows the average amount of achievement of the non-transfer pupils over the transfer pupils in each subject tested."

Score in reading	3.4 points
Reading in quotients	10 points
Composition	1 point
Principles of grammar	1.5
Sentence structure	1
Spelling of easy words	7.3
Spelling of hard words	15.2
Word Knowledge	8.6
Quality of handwriting	.9
Rate of handwriting	14.8
Arithmetic	.6
Algebra	1.1
General Science	5.3
American History	9.6

The final conclusion is that the rural school is less efficient than the town and city school."[1]

The majority of studies reported on have had reference to grade children before they were elibible for High School. This survey shows that the superiority of the city child is consistently true through each of the grades in the secondary school.

C. W. Stone and J. W. Courtis compared the students of the one room rural school with the grade students in the village schools of Spokane County, Washington. The pupils of the rural schools were paired with students of equal ability in graded schools. Four-hundred twenty were included in the study. There were two-hundred twelve in the ninth grade, one-hundred sixty-three were in the seventh and eighth and forty-five were eighth grade pupils who took the eighth grade examination. The results of the study may be summarized as follows: In the ninth grade the pupils in the graded schools were three and eight tenth school months in advance of the pupils in the one room schools; in the seventh and eighth grades the studies of the graded schools were five and six tenths school months in advance of the rural schools. The achievement of pupils of graded schools are shown by each comparison made to be greater than achievement of pupils in one room schools who were matched with them.

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1. Loyd W. Grigsby, "A Comparison of Transfer and Non-Transfer Students in the High School of Spiro, Oklahoma" Masters Thesis, Oklahoma University, 1937

The superiority of the graded school has been quite generally answered, but the rural school typefied in the past by the "little red schoolhouse," still has supporters who are not willing to concede inferiority. [1]

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1. C. W. Stone, J. W. Courtis, "Progress of Equivalent One Room and Graded School Pupils." Journal of Ed. Research, Vol. 16, 1927, pp 260-64.

TEACHER TRAINING AND QUALIFICATION

The statement that a school is as good as its teachers is surely true. The entire rural neighborhood depends upon the teacher to not only perform her duties in the classroom well, but also to use her initiative and leadership to promote whatever activity in which the community might become interested. If she is the dynamic, energetic and well qualified individual that she should be, her job for at least a year is secure. However, should she arouse the displeasure of any member of the board of education her tenure in that district might be limited to one or two years. This, as well as a better salary, more instructional supplies., more pleasant conditions in which to work and many other advantages induce the better rural teachers to move into the city systems.

Cubberly says that the cities have enticed the best rural teachers away from the country districts by increasing their wages and offering them other advantages the rural school cannot furnish. [1]

Circumstances of this nature have resulted in the younger, less experienced and poorer qualified teachers turning to the rural school for employment. Those of this number who are efficient will follow their predecessors to the city.

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1. Elwood P. Cubberly, Op. Cit. p. 100

This information was based upon conditions existing in forty three states. No statistics were available in the other five states. The deplorable conditions regarding preparation of teachers is described in the following:

> "Over half a million children are still taught by teachers who have never studied beyond the elementary school; approximately three million children by teachers who have never been graduated from a high school; approximately two and one half millions by beginning teachers, who work mostly without any supervision; and about the same number by teacher too young to be allowed to vote." [1]

Teachers who work in districts in which very few, if any of the patrons are educated have less incentive to attend school. Those who work in the larger schools find competition more keen and there develops in them a pride of profession which serves as an impetus for better professional preparation.

An example of teachers in a larger unit attaining higher learning and better certificates is cited in the study of W. E. Sheffer regarding the closing of rural schools in Kansas. Mr. Sheffer submits this statement:

> "Before these schools entered cooperative areas 11 percent held state certificates; 60 percent held county certificates. After entering cooperative areas the children were taught by teachers 60 percent of whom had state certificates and only 20 percent held county certificates. Before entering the cooperative areas 43 of the schools had an eight month term, later twenty-two had a nine month term." [2]

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1. N. E. A. Research Bulletin, Vol. 1, No. 1, Table 20 page 43.
2. W. E. Sheffer, Op. Cit., P. 34

Obviously, teachers sought higher certificates when they became part of a higher unit.

Van Wagenen, in connection with his survey on comparative pupil achievement in rural, town, or city schools measured the abilities of approximately on thousand students preparing in the high school training classes for teaching. From the results of these tests, he was prepared to make the following statement:

> "That beginning rural school teachers should know so little more of the content of instruction than the pupils whom they plan to teach is undoubtedly startling. Whether or not teachers of even considerable experience have had the opportunity of acquiring much greater abilities in these subjects may be questioned, at least, at present we do not know. If the teacher's knowledge of the subject is of much significance in teaching surely here is need for advancement. High mental ability can only be selected for the teaching profession; greater knowledge of the subject matter may be acquired if adequate time is set aside for it. Even the selection of students of markedly high mental ability cannot in itself be counted upon to provide much greater abilities in the content of instruction. Only a considerably longer period of training--much of it devoted to the acquisition of abilities in the content subjects of instruction--can provide the intellectual leadership of teachers among their more gifted pupils." 1

Selection of teachers is one of the biggest problems of school administrators. There are many factors to be done and considered before judgment is passed on an applicant. The following are some of the characteristics a teacher should have: personality, loyalty, and service, professional training, character, common sense, adaptability, personal appearance, initiative and self confidence, good morals, age, and good health. A teacher may have all of these and be

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1. Van Wagenen, Op. Cit., p. 144

gifted with many more worthy traits, but unless she has a desire to teach and a love for children, failure is her certain portion.

COMPARATIVE ATTENDANCE

It is a human characteristic to enjoy those things which are attractive, and certainly the rural boys and girls should not be criticized for poor attendance, because the schools which it is their fate to attend have very few traits which might appeal to their aesthetic sense. Cubberly pictures the situation in the following manner:

> "Such schools lack interest, enthusiasm and impulses to action and usually have poor attendance and short terms. For such schools the financial support is usually small and moral support weak. The frequent change in teachers; the inadequate supervision; the touching lack of proper direction; and the poor, inadequate and too often run down school building makes the school almost wholly lacking in the elements which are so necessary to make it an important factor in the lives of country children." [1]

The Oklahoma Education Survey Commission furnishes valuable information on attendance in its report of conditions existing in this state. Twenty-three percent of the total number of students enrolled in one teacher schools attended less than two months; thirty-five per cent attended less than three months; forty-six per cent were in school less than four months; fifty-four per cent attended less than five months; sixty-three per cent attended less than six months; seventy-five per cent were in school less than seven months, and ninety-five per cent attended less than eight months. The record of the two room school is little better. In one case, ten of the

1. Elwood P. Cubberly, Op. Cit., p. 166

one-hundred twenty-five students enrolled were present the day the committee visited. In fully ninety per cent of the schools visited, the following conditions are observed: Rooms were bare and unattractive; class organization was inefficient; lesson assignments were indefinite with a tendency to stimulate effort on the part of the children for a short period of time only; children were expected to repeat the lesson as given in the book as individuals to the teacher instead of doing original thinking and challenging the attention of their classmates when reciting. [1]

This information is of special value because it relates to the conditions existing in the rural schools of Oklahoma. Such haphazard attendance by the boys and girls of these schools will insure their achievement of but little scholastically, regardless of their mental ability.

In order that evidence from another section of the United States may be furnished, the consolidated report of the state educational commission on the Public School System of North Carolina is cited. The percentage of enrollment in average daily attendance in one teacher, two teacher, three teacher, four to six teacher, seven and above teacher schools of Wake County White elementary schools is listed. One teacher schools have 60.9 per cent; two teacher schools have

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1. Oklahoma Ed. Survey Commission Public Instruction in Oklahoma, Bulletin 14, Dept. of Interior Bureau of Education Washington, D. C., 1931, p. 234

66.2 per cent; three teacher schools have 66.5 per cent; four to six teachers have 74.2 per cent and the seven and above teacher schools have 73.5 per cent. [1]

An increase of 13.3 per cent of enrollment in average daily attendance in the four to six teacher school over the one teacher school is shown. Too, the data show that an increase in the size of the rural schools would increase the attendance of rural boys and girls.

In order that the general public may become more conscious of these problems of attendance in rural schools, a table showing the average daily attendance in the rural schools of Kansas during the school year 1935 and 1936 is given.

TABLE VII

NUMBER AND AVERAGE DAILY ATTENDANCE OF ONE TEACHER SCHOOL 1935-36

Average Daily Attendance	No. of Schools
1	39
2	131
3	202
4	338
5	393
6 to 10	2552

1. "Consolidated Report of the State Educational Commission on the Public School System of North Carolina," p. 130.

1 to 7	
11 to 15	1898
16 to 20	820
21 to 25	272
26 to 30	95
31 to 35	27
36 to 40	5
41 to more	3

The average daily attendance per teacher was 11.1 pupils [1]

This table is self explanatory, however, the situation was so deplorable that school men marvel at how one thousand and three schools of no more than five average daily attendance could exist in any state during this age of educational advancement. Four-thousand six hundred and seventy-five teachers were working in schools which had an average, average daily attendance of eleven and one-tenth pupils.

The situation in Kansas is certainly not a true one over the United States, but something is drastically wrong when such a large percentage of boys and girls of high school age are not in attendance in some secondary school of the nation. Dr. H. P. Rainey of the American Council on Education says,

> "Our democratic philosophy of education has committed us to the principle of providing an education at public expense to each American youth. It is true that this commitment has been completely fulfilled. Yet at the present time, for the country as a whole, approximately 65 per cent of the high school population from 4 to 8 years is enrolled in school. Conversely this means 35%

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[1] W. E. Sheffer, Op. Cit. p. 33

of high school population is not enrolled in high schools. It is also significant that there is a wide variation among the states with respect to this per cent of pupils of high school age enrolled in high school. These facts for a number of the states are worth noting.

STATE	PERCENTAGE
Alabama	28
Arkansas	33.5
Mississippi	35.7
S. Carolina	35.8
Illinois	62.7
Ohio	68.7
New York	72.9
Massachusetts	74.1
California	85.8
Nevada	86.3
Wyoming	86.6
Washington	90.8
Utah	95.6 [1]

The leadership shown by Utah is explained by Mr. Skidmore in the following statement:

> "Compulsory attendance laws induced through consolidation, which required attendance up to the eighteenth year (passed in 1919) assisted materially on high school level. As a consequence the number of high school graduates from Box Elder District was more than doubled from the year 1921 to 1923 and trebled from 1921 to 1926." [2]

According to the data in the table, the greatest per cent of students of high school age in the extreme west are in school.

The lowest percent was 33.25 per cent which was an average of the four southern states listed. Georgia showed the lowest percentage by meriting only 28 per cent.

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1. Charles H. Skidmore, Op. Cit., p. 16
2. Ibid, p. 650

DAILY PROGRAM AND TIME ALLOTMENT

The rural teacher is confronted with many problems but one which ranks first in importance is the daily program and time allotment. The teaching of each class is her responsibility and she must divide the time as equitably as possible. The importance of the subject guides her in planning her daily program. In order that the magnitude of this task may be more fully realized two workable daily programs are listed.

Year's work	Course of Study	Classes	Individual and class Instruction	Grades	Time	Begin	Directed Study
	255	General	Exercise	all	10	9:00	Directed
3.	76	Reading	Class	3	10	9:10	Study
4.	96	Reading	Instruction	4	10	9:20	20
5.	123	Reading	When	5-6	10	9:30	Min.
7.	178	Reading	Desired	7-8	10	9:40	Reci-
1.	32	Reading	Class	1	10	9:50	tations
2.	32	Reading	Instruction	2	10	10:00	40
		Spelling	Daily Directed Play	all	15	10:10	Min.
				all	15	10:25	15
4.	108	Arithmetic		Class	4	10:40	Directed
5.	108	Arith.	Class Instruction	5	10	10:50	Study
6.	160	Arith.	When	6	10	11:00	20
7.	193	Arith.	Desired	7	10	11:10	Min.
8.	232	Arith.		8	10	11:20	Reci-
1.	50	Numbers	Class	1	10	11:30	tation

2	68	Numbers	Instruction	2	10	11:40	60
3	86	Arith.	Daily	3	10	11:50	Min.
				All	60	12:00	60
5	134	Lang.	Class	5	10	1 :00	Directed
6	156	Lang.	Instruction	6	10	1 :10	Study
7	184	Grammar	When	7	10	1 :20	25
8	222	Grammar	Desired	8	10	1 :30	Min.
7	207	Phys & Civics		7	10	1 :40	
1	39	Read-Lang	Class	1	7	1 :50	Recitation
2	64	Read-Lang	Instruction	2	8	2 :00	
3	82	Lang-Write Writing Lunch Play	Daily Directed	3&4 all all	10 15 15	2 :15	65 Min. Directed
1	71	Reading &	Class	1	7	2 :45	Directed
2	71	Constr-uction work	Instruction	2	8	2 :52	Study
3	111	Home Geog	Daily	3&4	10	3 :00	25
5	141	Geog.	Class	5&6	10	3 :10	Min.
6	167	Hist.	Instruction	6	10	3 :20	Reci-
7	197	Geog.	When	7&8	15	3 :30	tation
7	201	Hist.	Desired	7&8	15	3 :45	50
		Dismissal				4 :00	Min.

This program is presented as a model of a one-room school in Illinois. [1]

1. A. B. Mueller, "Progressive Trends in Rural Education" The Century Co. New York, 1926 p. 189

The teacher of this school will attempt to teach six different reading courses; three language courses; two reading and language courses alternately; eight classes in arithmetic; two in Grammar; one class in physics and Civics; one class in reading and construction work; three courses in geography; two courses in history and thirty minutes devoted daily to spelling and writing. The most versatile teacher could do little but follow a routine procedure each day. No time is left over for personal supervision. The pupil is rather well left to his own initiative.

The following schedule is an attempt of Miss Mabel Carvey of Columbia University to remedy the situation. Some improvement was made but it is evident that as long as a condition of this kind exists in the rural schools of this country the achievement scores will be below the national norm.

ONE TEACHER SCHOOL PROGRAM PREPARED BY

MISS MABEL CARNEY, TEACHERS COLLEGE, COLUMBIA UNIVERSITY

9:00-9:15	Opening exercises
9:15-9:25	First Reading
9:25-9:40	Second Reading
9:40-10:05	Number--Grades 2 and 3 together, alternately, or with time divided.
10:05-10:30	Arithmetic--Grades 2 and 3 together, alternately, or with time divided.
10:30-10:45	Recess
10:45-11:00	First Reading and Phonics

11:00-11:10	Second word drill and Phonics
11:10-12:00	Geography--Grades 3, 5, 7. Time distributed according to class needs.
12:00-1:00	Noon
1:00-1:15	First Reading
1:15-1:30	Second Reading
1:30-1:45	Third Reading
1:45-2:00	Spelling (all grades above first)
2:00-2:30	History (four days) Grades 5 and 7 alternately or with time divided
2:30-2:45	Recess
2:45-3:05	General Primary Class--Grades 1, 2, 3 Story telling, Nature Study, Industrial Arts, Drawing, and Language
3:05-3:30	Reading and English, Grades 5 and 7
3:30-4:00	General Advanced Class--Grades 5 and 7 Nature Study or Agriculture, Home economics, Hygiene, Industrial Arts and Drawing.

"The number of grades has been reduced from eight to five by eliminating the third, fifth, and seventh grades. Classes alternate in certain subjects during the same period on the various days of the week, while classes are combined in some subjects as sixth and eighth grade reading. Some subjects are taught in relation to others; as, for example, language in the fourth and sixth grades in relation to geography and history. For other general purposes, such as nature study, science, and the like, the school is divided in the upper and lower groups." [1]

1. George D. Strayer and N. L. Engelhardt, "Classroom Teacher" American Book Company, p. 225

SUMMARY

Many studies have been made to find whether or not the students of the one room rural school achieve as much as students of two or more teacher schools. However, not only can more evidence be used in this field but the comparison of High School students who did their elementary work in rural schools with those boys and girls who finished their elementary work in the grade school of either towns or cities is a splendid field for research.

It is evident from data compiled in this investigation that in every test, the non-transfer students show greater achievement than the transfer group. Too, the non-transfer pupils attended school more regularly, and fewer are over age than the transfer students. The boys and girls of the town schools are slightly in advance of the rural boys and girls mentally and chronologically. The transfer group exceeds the non-transfer students from twelve months in the second year to four, eight, and five months in the Freshman, Junior, and Senior years respectively.

CONCLUSIONS BASED ON READINGS IN RURAL EDUCATION

1. Consolidation of schools stimulates better attendance and increases the number of rural boys and girls who finish High School.

2. Sixty-five per cent of potential High School students are in school.

3. A greater percentage of those eligible for high school in the western states are enrolled than in any other section of the nation. The data show that the following percentages of eligibles for high school in the west, north, east and south is eighty-nine and two-tenths, sixty-five and seven-tenths, seventy-three and five-tenths, thirty-five and twenty-five hundredths respectively. Utah with an average of ninety-five and six-tenths exceeds the other states in the table and Georgia, with but twenty-eight per cent of her potential high school students in school has the lowest average.

4. Consolidation of schools tends to insure better trained teachers.

5. One room schools are fast disappearing in this country, however, they still constitute fifty-six and seven-tenths per cent of all the schools of the nation.

6. Sixty per cent of the next generation's voting power is in the rural schools.

7. Cities spend four to six times as much per class

room for school buildings and twenty to thirty times as much for equpiment as rural schools.

8. Schools should teach children to live more abundantly.

9. Scientific data on the advantages of consolidated schools is sorely needed.

10. The achievement of students of town and city schools is greater than that of rural schools.

11. The distribution of time among the various grades and the wide variation of subject matter taught in the one and two rural schools greatly reduces the possibility of high pupil achievement.

CHAPTER III

COMPARISON OF CLASSIFICATION, ATTENDANCE, NATIVE ABILITY AND ACHIEVEMENTS

The Sones-Harry achievement test was given. There are four divisions of the test, namely, Language and Literature, Mathematics, Natural Science, and Social Science.

This test is the result of several years of experimental work in connection with the Annual Academic Contest of the University of Pittsburg. The original questions were based as much as possible upon the agreement reached by various national committees and individual research workers in the various subject matter fields.

Irving A. Mather [1] made an independent extensive study of the validity of the test. His methods for checking the validity were: analysis of textbooks, comparisons with the state course of study, teachers' marks and examinations, and order of difficulty of items. The summary is:

> "Seventy-nine to eighty-six per cent of the questions in English were actually found in the Oregon State test books; 97.5 per cent of the Mathematics questions, 92.5 per cent of the Science questions, and 94 per cent of the Social Studies questions actually occurred in the text books. On the average of the whole, over 50 per cent of the items were found to be arranged in order of difficulty from the easiest to the hardest. In regard to sections, an average of about 55 per cent of the ideal arrangement in order of difficulty was found. The English questions were arranged the best, while the sections of the Natural Science test were in the best order of the four fields tested. The correlation coefficient

1. Mather, Irving A., "Validity of the Sones-Harry High School Achievement Test, Form A, for Use in Oregon." Thesis for M. S., Graduate School of the University of Oregon. August, 1930.

> between percentile ranking on the test and teachers' grades from .42 to .65 and the total average correlation for the four subjects was .55, although the reliability of teachers' marks ranged only from .54 to .79." [1]

The transfer and non-transfer students took the tests in their respective schools under identical conditions. Each school group was examined at the same time and was closely supervised by the Principal of each school. The tests were scored according to directions by the author.

DISTRIBUTION OF CHILDREN ACCORDING TO AGE AND GRADE

The distributions were made according to a universally used standardized method. [2]

Table VIII shows the age grade distribution for the transfer students.

The number of years between the extremes for each grade are as follows: freshman, 5½ years; sophomore, 4½ years; junior, 4½ years; senior 16½ years. In the freshman class three students or twelve per cent are under age. Four freshmen or sixteen per cent are normal age and eighteen pupils or seventy-two per cent are over age. The average freshman is fifteen years and five months old. In the sophomore year one student or four per cent is under age. Six sophomores or twenty-four per cent are of normal age; eighteen boys and girls are of normal chronological age.

TABLE VIII

AGE GRADE DISTRIBUTION FOR THE TRANSFER STUDENTS IN THE HIGH SCHOOLS OF POTEAU, PANAMA, AND SPIRO, OKLAHOMA

	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	TOTAL
12	2				2
12½					0
13					0
13½	1				1
14	X 0 X				0
14½	X 4 X	1			5
15	3	X 1 X			4
15½	7	X 5 X	1		13
16	6	4	X 2 X	1	13
16½	1	4	X 5 X	3	13
17	0	3	6	X 2 X	11
17½	1	5	9	X 7 X	22
18		1	2	1	4
18½				1	1
19		1	2	2	5
19½			1	3	4
20			1		1
20½					
21				1	1
21½				1	1
22					
22½					
23					
23½					
24					
24½					
25					
25½					
26					
26½					
27					
27½					
28					
28½				1	1

	25	25	29	23	102
No. retarded	10	18	18	21	67
no. advanced	3	1	1	4	9
no. normal	4	6	7	9	26
% retarded	72	72	72.4	43.5	65.7
% advanced	12	4	3.5	17.4	8.8
% normal	16	24	24.1	39.1	25.5
% total	100	100.0	100.0	100.0	100.0
Mean	14.2	16.5	17.3	18.4	16.8

Two sophomores would be over age if they were seniors. The average age for the sophomore group is sixteen years and nine months. Of the twenty-nine students in the junior class, one, or three and five-tenth per cent are under age, seven or twenty-four and one-tenth per cent are over age. The average age of the members of this group is seventeen years and eight months. Four, or seventeen and four-tenth per cent of the twenty-three seniors are under age, nine, or thirty-nine and one-tenth per cent are retarded chronologically. The average age of the members of the senior group is eighteen years and six months.

Table IX shows the age grade distribution of the non-transfer pupils. The number of years between the extremes in each grade is as follows: freshmen five years; sophomore, two years; junior class, three and one-half years; and senior, three and one-half years. In the freshman year, four or thirteen and eight-tenth per cent are under age; fifteen, or fifty-one and seven-tenth per cent are over age. One freshman would have been over age had he been a senior. The average age of the freshman is fifteen years and one month. There were twenty-nine non-transfer freshmen in the study. Of the twenty-seven sophomores, two, or seven and four-tenth per cent were under age, sixteen, or fifty-nine and two-tenth per cent were normal

AGE GRADE DISTRIBUTION FOR THE NON TRANSFER STUDENTS IN THE HIGH SCHOOLS OF POTEAU, PANAMA, AND SPIRO, OKLAHOMA

AGE	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	TOTAL
12					
12½					
13					
13½	4				4
14	X 5 X				5
14½	X 10 X	2			12
15	2	X 7 X			9
15½	4	X 9 X			13
16	1	5	X 6 X		12
16½	1	4	X 8 X	1	14
17	1		2	X 11 X	14
17½			1	X 6 X	7
18			2	11	13
18½	1			5	6
19				1	1
19½			1	1	2
20					
20½					
21					
21½					
22					
22½					
23					
23½					

No. Under Age	4	2	0	1	7
No. Normal	15	16	14	17	62
No. Over Age	10	9	11	15	45
% Under Age	13.8	7.4	0	3.1	6.1
% Normal	51.7	59.2	56	51.5	54.4
% Over Age	34.5	33.4	44	45.4	39.5
% Total	100	100	100	100	100
Mean	14.8	15.5	16.78	17.9	16.3

and nine, or thirty-three and four-tenth per cent were advanced chronologically. The average of the members of the second year group is fifteen years and nine months. There are no students in the twenty-five juniors who are under age. There are fourteen, or fifty-six per cent of this group of normal age and eleven, or forty-four per cent of the third year class were over age. The average age of this group is seventeen years. One child or three and one-tenth per cent of the thirty three members of the senior class is under age. There are seventeen or fifty-one and five-tenth per cent of normal age, and fifteen, or forty-five and four-tenth per cent are over age. The average age for the senior class is eighteen years and one month.

AGE GRADE COMPARISONS

There are one-hundred-two pupils in the four grades of the transfer group of these nine or eight and eight-tenth per cent are under age, twenty-six or twenty-five and five-tenth per cent are of normal age and sixty-seven or sixty-five and seven-tenth per cent of the entire group are retarded. A total of one-hundred fourteen non-transfer students in all four grades are in the table. Of this number, seven or six and one-tenth per cent are under age, sixty-two, or fifty-four and four-tenth per cent are normal, and forty-five,

or thirty-nine and five-tenth per cent are over age. Two and seven-tenth per cent more of the transfer group are under age, however, twenty-eight and nine-tenth per cent more of non-transfer students are of normal age and twenty-six and two-tenth per cent less of the non-transfer students are over age. The average non-transfer freshman is four months younger than the transfer freshman, the non-transfer sophomore is one year younger than the transfer second year student, the non-transfer junior is eight months younger than the transfer junior, and the non-transfer senior is five months younger chronologically than the transfer senior.

PUPIL CAPACITY

The ranges of native capacity as measured by intelligence quotients were obtained by giving the Detroit Advanced Intelligence Test. [1] Students having an I. Q. below ninety are considered by most authorities to be sub-normal mentally. Those who are said to be normal mentally have I. Qs. ranging from ninety to one-hundred nine inclusive. These boys and girls whose I. Qs. ranging from 109 and higher are said to have above average mental ability.

The ranges of native capacity for the transfer students is shown by table XI.

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1. Detroit Advanced Intelligence Test, Forms V abd W for High School and College. Public School Pub. Co., Bloomington, Illinois

A COMPARISON OF AVERAGE AGES OF TRANSFER AND NON TRANSFER STUDENTS

TABLE X

Types of Pupils	GRADE 9	10	11	12	Total
Transfer Pupils	14.2	16.5	17.3	18.4	16.8
Non-transfer Pupils	14.8	15.5	16.78	17.9	16.3

NATIVE CAPACITIES OF THE TRANSFER STUDENTS IN POTEAU, PANAMA, AND SPIRO, OKLAHOMA HIGH SCHOOLS

TABLE XI

I. Q. Intervals	GRADES 9	10	11	12	Totals	Percentage each group is of the Total
80-89	5	1	1	2	9	8.88
90-99	8	4	1	0	13	12.75
100-109	4	6	12	9	31	30.39
110-119	6	11	7	5	29	27.05
120-129	0	1	6	7	14	13.75
130-139	1	1	2	0	4	3.93
140-149	1	1	0	0	2	1.96
TOTALS	25	25	29	23	102	98.71

Five of the twenty-five pupils in the freshman class have an I. Q. below ninety. Twelve freshmen are in the interval of ninety to one-hundred nine, and eight have an I. Q. higher than one-hundred nine. There are twenty-five students in the sophomore class one of whom has an I. Q. of less than ninety. There are ten sophomores who are average in mental ability and fourteen who have an I. Q. above one-hundred nine. Of the twenty-nine students in the junior class there is one with an I. Q. below ninety. Thirteen members of the junior class rate between ninety and one-hundred nine inclusive and twelve have an I. Q. higher than one-hundred nine. The senior group of twenty-three members has two with an I. Q. below ninety. Nine boys and girls of this group have average intelligence, and twelve members of the senior class have an I. Q. above one-hundred nine. According to the date forty-eight per cent of the freshman class have average mental ability, forty per cent of the sophomores were average in intelligence, forty-four and eight-tenth per cent of the juniors were of average intelligence, and thirty-nine and one-tenth per cent of the seniors have an I. Q. of average mental ability. This information shows the freshman class with the largest percentage of students of average mental ability.

The ranges of native ability for the non-transfer pupils are shown in Table XII. Of the twenty-nine students in the freshman class, one has an I. Q. below ninety. Ten members of the sophomore class have an I. Q. between the interval of

ninety and one-hundred nine inclusive and eighteen have an I. Q. above one-hundred nine. One of the twenty-seven members of the sophomore class has an I. Q. below ninety, seven have an I. Q. between ninety and one-hundred nine inclusive, and nineteen have an I. Q. between one-hundred nine and one-hundred twenty. Not any member of the junior class has an I. Q. below ninety. Four students have an I. Q. between ninety and one-hundred nine inclusive, while twenty-one boys and girls are above average intellectually. Of the twenty-three pupils in the senior class, one has an intelligence quotient below ninety, eight have intelligence quotients in the interval of ninety to one-hundred nine inclusive, twenty-four have I. Q.s above one-hundred nine. In the freshman class, thirty-four and five-tenth per cent have average mentalability, twenty-six per cent of the sophomore class is of average mental ability and thirty-four and eight-tenth per cent of the senior class have average intelligence. This data show the seniors to have the greatest per cent of students of average mental ability.

NATIVE CAPACITIES OF THE NON-TRANSFER STUDENTS IN POTEAU, PANAMA, AND SPIRO, OKLAHOMA HIGH SCHOOLS

TABLE XIII

I. Q. Intervals	9	10	11	12	Totals	Percentage Each Group is of Total
80-89	1	1	0	1	3	2.63
90-99	2	2	1	2	7	6.14
100-109	8	5	3	6	22	19.29
110-119	9	7	11	11	38	33.33
120-129	7	8	6	7	28	24.56
130-139	2	3	4	5	14	12.29
140-149	0	1	0	1	2	1.75
Totals:	29	27	25	23	114	99.99

COMPARISON OF PUPIL CAPACITY

The transfer group has eight and eighty-eight hundredth per cent of its pupils below normal while the non-transfer group has two and sixty-three hundredth per cent. The transfer group has forty-three and one-tenth per cent of the students with average mental ability and the non-transfer group has twenty-five and forty-three hundredth per cent. The transfer group has forty-six and sixty-nine hundredth per cent of the pupils above the average mentally and the non-transfer group has seventy-one and ninety-three hundredth per cent. The non-transfer group has a higher intelligence puotient than the transfer students.

DISTRIBUTION OF STUDENTS ACCORDING TO ATTENDANCE

Table XIII shows the attendance of the transfer pupils that took the tests and finished the years' work.

The transfer freshmen attended an average 172.5 days, the sophomores, 172.1, the juniors, 163.8 and the seniors attended an average of 168.9 days. The junior class had the poorest attendance record.

Table XIV shows the attendance of non-transfer students who took the tests and finished the years' work.

ATTENDANCE OF TRANSFER PUPILS
TABLE XII

No. Days	GRADE 9	10	11	12	Totals
179-180	7	1	2	1	11
177-178	6	7	2	3	18
175-176	4	5	5	4	18
173-174	2	2	3	6	13
171-172	0	3	2	0	5
169-170	0	5	3	4	12
167-168	1	0	2	0	3
165-166	3	1	4	2	10
163-164	0	0	0	0	0
161-162	0	0	0	0	0
159-160	1	0	0	1	2
157-158	0	0	0	0	0
155-156	0	0	0	0	0
153-154	0	0	0	0	0
151-152	0	0	0	0	0
149-150	0	0	3	0	3
147-148	0	0	0	0	0
145-146	0	0	0	0	0
143-144	0	0	0	0	0
141-142	0	0	0	0	0
139-140	0	0	0	1	1
137-138	0	0	0	0	0
135-136	0	0	0	0	0
133-134	0	0	0	0	0
131-132	0	0	0	0	0
129-130	0	1	0	0	1
127-128	0	0	0	0	0
125-126	0	0	1	1	2
123-124	0	0	0	0	0
121-122	0	0	0	0	0
119-120	1	0	0	0	1
117-118	0	0	0	0	0
115-116	0	0	0	0	0
113-114	0	0	0	0	0
111-112	0	0	0	0	0
109-110	0	0	1	0	1
107-108	0	0	0	0	0
105-106	0	0	1	0	1
Total	25	25	29	23	102
Mean	172.5	172.1	163.8	168.9	169.3

ATTENDANCE OF NON-TRANSFER PUPILS

TABLE XIV

No. Days	GRADE 9	10	11	12	Totals
179-180	11	6	10	3	30
177-178	5	7	3	6	21
175-176	7	6	2	6	21
173-172	0	1	0	1	2
171-172	1	2	1	6	10
169-170	3	2	2	7	14
167-168	1	1	1	0	3
165-166	0	2	3	2	7
163-164	0	2	3	2	2
161-162	0	0	0	0	0
159-160	0	0	0	0	0
157-158	0	0	1	2	3
155-156	0	0	0	0	0
153-154	0	0	0	0	0
151-152	0	0	0	0	0
149-150	1	0	0	0	1
Total:	29	27	25	33	114
Mean :	174.8	171.4	173.6	172.5	173

TABLE XV

COMPARISON OF AVERAGE ATTENDANCE

OF TRANSFER AND NON-TRANSFER STUDENTS

Type of Pupil	GRADE 9	10	11	12	Total
Transfer Pupils	172.5	172.1	163.8	168.9	169.3
Non-Transfer Pupils	174.8	171.4	173.6	172.5	173

The non-transfer freshmen attended an average of 174.8 days, the sophomores, 171.4 days, the juniors, 173.6 days and the seniors 172.5 days. The freshman class had the best attendance record and the sophomore group was in school the least amount of time. The non-transfer students attended school an average of 173 days; which was an improvement over the transfer students.

ATTENDANCE COMPARISONS

The non-t ransfer freshmen attended 2.3 more days than the transfer freshmen. The transfer sophomores attended .7 more days than the non-transfer sophomores. The non-transfer juniors surpassed the transfer juniors in attendance by being in school a total of 918 more days. The non-transfer seniors were in attendance 3.6 more days than the transfer seniors. The non-transfer students attended school 3.7 more days than the transfer students.

Table XVI shows the distribution of scores of transfer students on Language and Literature. The ninth grades are 2.3 above standard, and the tenth grade is 12.1 points above the fiftieth percentile. The juniors lack three-tenths of a point of making the average score. The best score is that of the sophomores, who lack two points of reaching the seventy-fifth percentile. The highest score of any individual student is one-hundred fifteen points, made by a senior despite the fact that this class needs one point to make it reach the average. Scores from highest to lowest are as follows: freshman, sixteen to seventy-five; sophomores, twenty-one to one-hundred ten, juniors, sixteen to one-hundred ten, and seniors, twenty-six to one-hundred fifteen. The average score of this group is three and five-tenths above standard.

Table XVII shows the distribution of the scores made by the non-transfer students on Language and on Literature. Each of the four grades made above the average score. Each grade, according to its mean score is classed as superior or above the seventy-fifth percentile. The freshmen have the highest rating according to their average score. A freshman with a score of one-hundred eighteen rates the highest as an individual. However, two freshmen and two sophomores have scores in the 116 to 120 range. The ninth is 28.7 points above the fiftieth percentile, eleventh, 15.7 points above the fiftieth percentile, and the seniors, 23.8 above the average score. The range of scores is as follows: ninth grade,

DISTRIBUTION OF SCORES OF THE TRANSFER STUDENTS ON LANGUAGE AND LITERATURE

TABLE XVI

Range of Scores	GRADE 9	10	11	12	Total
116-120					
111-115	0	0	0	1	1
106-110	0	1	1	0	2
101-105	0	0	0	0	0
96-100	0	0	0	0	0
91-95	0	2	0	1	3
86-90	0	0	0	0	0
81-85	0	2	2	0	4
76-80	0	0	0	1	1
71-75	1	1	3	2	7
66-70	2	0	1	3	6
61-65	0	0	0	1	1
56-60	1	2	3	3	9
51-55	2	3	5	2	12
46-50	5	2	2	6	15
41-45	2	3	4	1	10
36-40	1	1	4	0	6
31-35	6	1	2	1	14
26-30	4	0	0	1	5
21-25	0	3	1	0	4
16-20	1	0	1	0	2
11-15	0	0	0	0	0
6 -10	0	0	0	0	0
0 -5	0	0	0	0	0
Total	25	25	29	23	102
Mean	38.3	56.1	52.9	59	51.5
A. Score	36	44	53	60	48

DISTRIBUTION OF SCORES OF THE NON-TRANSFER STUDENTS ON LANGUAGE AND LITERATURE

TABLE XVII

Ranges of Scores	GRADE 9	10	11	12	Total
116-120	2	2	0	0	4
111-115	1	0	0	1	2
106-110	1	1	2	4	8
101-105	1	0	4	6	11
96 -100	1	0	3	3	7
91 -95	2	4	0	1	7
86 -90	1	1	2	3	7
81 -85	0	3	0	2	5
76 -80	2	1	0	3	6
71- 75	1	2	0	3	6
66 -70	1	0	2	0	3
61 -65	1	3	2	3	9
56 -60	2	0	2	1	5
51 -55	2	2	0	0	4
46 -50	2	3	2	0	7
41 -45	3	2	3	0	8
36 -40	1	2	0	0	3
31 -35	3	0	2	3	8
25 -30	2	1	1	0	4
Total:	29	27	25	33	114
Average:	36	44	53	60	48
Mean:	65.3	70.5	68.7	83.8	72.6

twenty-five to one-hundred twenty; tenth, twenty-five to one-hundred twenty--eleventh; twenty-five to one-hundred ten, twelfth, thirty-one to one-hundred fifteen. The average score of the entire group is seventy-two and six-tenths or twenty-four and six-tenths above the fiftieth percentile.

The non-transfer students have better scores than the transfer students in each of the grades. Differences in scores of the two groups are; freshmen, 27 points, sophomores, 14.4, junior, 15.8, and senior, 24.8. The average for the non-transfer group and the sophomores of the transfer students have the highest score.

COMPARISON OF ACHIEVEMENTS IN MATHEMATICS

Table XIX shows the distribution of scores made by transfer students on mathematics. Each class has a score above the average. The difference in each grade is as follows: freshman, 3.7, sophomore, 6.1, junior, 3, and the seniors surpass the average score by .4 according to the data, the sophomore group showing the greatest achievement. The seniors the least. The scores by grades range in the following manner; freshmen, seven to thirty-nine, sophomores, seven to sixty-one, the third year class, seven to sixty-six and the seniors, seven to sixty. The score sixty-six, made

COMPARISON OF AVERAGE SCORES BY TRANSFER AND NON-TRANSFER PUPILS IN LANGUAGE AND LITERATURE

TABLE XVIII

Types of Pupil	GRADE 9	10	11	12	Total
Transfer	38.3	56.1	52.9	59	51.5
Non-transfer	65.3	70.5	68.7	83.8	72.6

by a junior is the highest number of points recorded by an individual. There is a difference of 9.6 between the average for the transfer group and the average of the non-transfer group.

Table XX shows the distribution of scores made by non-transfer students. Each of the classes scored above the average of fiftieth percentile. The difference by grades is, freshmen, fourteen, second year group, thirteen and six-tenths, juniors, nine and two-tenths and the seniors, one and one-tenth. The general average for the non-transfer group is nine and six-tenths better than the score on the fiftieth percentile. The freshmen show the greatest achievement, and the seniors the least advancement. The range of scores by grades follows: freshmen; ten to sixty, sophomore group, seven to sixty-three, junior class, seven to sixty-three, and the seniors zero to sixty-three. The highest score of sixty-three was merited by a sophomore. The lowest score is that of a senior.

COMPARISONS OF SCORES ON MATHEMATICS

The data show the non-transfer students having the greatest achievement. The advantage by grades of the non-transfer over the transfer is; freshman, 10.3, sophomore, 7.5, junior, 6.2, and seniors, .7 of a point. The difference in the general average is 6.1. The seniors, of the two groups are more nearly now together.

DISTRIBUTION OF SCORES OF THE TRANSFER STUDENTS ON TEST IN MATHEMATICS

TABLE XIX

Range of Scores	GRADE 9	10	11	12	Total
73-75					
70-72					
67-69					
64-66	0	0	1	0	1
61-63	0	1	0	0	1
58-60	0	0	0	2	2
55-57	0	0	0	0	0
52-54	0	0	1	0	1
49-51	0	0	0	0	0
46-48	0	1	3	1	5
43-45	0	1	0	0	1
40-42	0	2	2	0	4
37-39	1	1	0	2	4
34-36	1	1	3	2	7
31-33	2	0	1	2	5
28-30	3	4	2	0	9
25-27	4	2	5	2	11
22-24	5	5	1	3	14
19-21	2	2	3	4	11
16-18	0	4	4	1	9
13-15	3	0	1	1	5
10-12	5	0	2	0	5
7-9	1	1	2	3	7
Total:	25	25	29	23	102
Av. Score:	19	22	25	27	23
Mean	22.7	28.1	28.	27.4	26.5

DISTRIBUTION OF SCORES OF THE NON-TRANSFER STUDENTS ON MATHEMATICS

TABLE XX

Range of Scores	GRADES 9	10	11	12	Total
73-75					
70-72					
67-69					
64-66					
61-63	0	1	0	1	2
58-60	1	1	1	0	3
55-57	3	1	1	0	5
52-54	2	2	1	1	6
49-51	1	2	2	1	6
46-48	1	1	2	1	5
43-45	1	1	0	2	4
40-42	1	1	1	1	4
37-39	1	3	1	3	8
34-36	2	2	3	5	12
31-33	1	3	4	4	12
28-30	2	1	2	1	6
25-27	1	1	1	4	7
22-24	4	2	2	1	9
19-21	1	1	1	2	5
16-18	3	1	1	1	6
13-15	3	1	1	2	7
10-12	1	1	1	2	5
7-9	0	1	0	0	1
4-6	0	0	0	0	0
0-3	0	0	0	1	1
Total:	29	27	25	33	114
Av. Score:	19	22	25	27	23
Mean:	33	35.6	34.2	28.1	32.6

COMPARISON OF AVERAGE SCORES IN MATHEMATICS BY TRANSFER AND NON-TRANSFER STUDENTS

TABLE XXI

Types of Students	GRADE 9	10	11	12	Total
Transfer	22.7	28.1	28	27.4	26.5
Non-Transfer	33	35.6	34.2	28.1	32.6

ACHIEVEMENT IN NATURAL SCIENCE

The test on natural science is a survey of General Science, Biology, Chemistry, and Physics. Neither chemistry nor physics is taught in either of the three schools furnishing students for the study.

Table XXII shows the distribution of scores of transfer students on Natural Science. The freshman and sophomore classes excel the average score by 5.5 and 3.2 respectively. The juniors and seniors show a deficiency of 2.6 and 2.1 respectively. The average score for the entire group is .7 better than the score falling on the fiftieth percentile. The freshman group shows the greatest achievement and the lowest advancement is shown by the seniors who are 2.1 points below the average score. The range of grades by classes is as follows: freshman, 0 to 45; sophomores, 0 to 55; juniors, 0 to 55, and the seniors range from 16 to 55.

Table XXIII shows the distribution of the scores of the non-transfer students on Natural Science.

Each of the classes scored above the average. The difference by grades is as follows: freshman, 12.5; sophomores, 4.7; third year group, 10.3; and the seniors show a 7 point advantage. The average for the non-transfer groups is 8.3 better than the fiftieth percentile. The freshman class shows the greatest advancement, while the poorest achievement is shown by the junior group. Two juniors have the highest scores.

The range of grades by classes is: freshman, 0 to 60; sophomores, 11 to 50; juniors, 0 to 65; and the seniors from 0 to 60.

COMPARISON OF ACHIEVEMENT IN NATURAL SCIENCE

The non-transfer group is superior in each grade, the differences in their favor are, freshmen, 7 points, sophomore, 1.5, junior students, 2.9 points and the fourth year class shows an average advantage of 9.1 points. The non-transfer group shows an average superiority of 7.6 points. The greatest difference is shown by the senior groups and the sophomore classes are nearest together.

ACHIEVEMENT OF TRANSFER PUPILS IN SOCIAL SCIENCE

The test on social science consists of questions taken from textbooks on History, Economics, and Civics.

Table XXV shows the distribution of scores the transfer students made in social science. Students in the first, second, and third year have an average which is slightly above the fiftieth percentile, but the senior class lacks nine-tenths of a point equalling the average score. The difference in each group is listed: freshman, 1.1, sophomore class, 17.9, juniors, 4.1, and seniors show a deficiency of .9 of a point. The general average for the entire group is 2.6 higher than the

DISTRIBUTION OF THE SCORES OF THE TRANSFER STUDENTS ON NATURAL SCIENCE

TABLE XXII

Range of Scores	GRADES 9	10	11	12	Total
51-55	0	1	2	1	4
46-50	0	0	0	0	0
41-45	2	4	3	3	12
36-40	0	1	1	2	4
31-35	2	3	3	4	12
26-30	6	4	3	4	17
21-25	7	3	5	6	21
16-20	3	7	6	3	19
11-15	4	1	5	0	10
6-10	1	1	0	0	2
0-5	0	0	1	0	1
Total	25	25	29	23	102
Av. Score	18	25	28	32	26
Mean	23.5	28.2	25.4	29.9	26.7

DISTRIBUTION OF THE SCORES OF THE NON-TRANSFER STUDENTS ON NATURAL SCIENCE TESTS

TABLE XXIII

Range of Scores	GRADES				
	9	10	11	12	Total
61-65	0	0	2	0	2
56-60	1	0	2	4	7
51-55	0	0	2	3	5
46-50	7	1	4	6	18
41-45	3	2	1	5	11
36-40	0	3	1	4	8
31-35	1	5	4	1	11
26-30	5	6	5	1	17
21-25	5	7	1	4	17
16-20	2	1	2	3	8
11-15	2	2	0	0	4
6-10	2	0	0	1	3
0-5	1	0	1	1	3
Total	29	27	25	33	114
Av. Score	18	25	28	32	26
Mean	30.5	29.7	38.3	39	34.3

COMPARISON OF THE AVERAGE SCORES BY TRANSFER AND NON-TRANSFER STUDENTS IN NATURAL SCIENCE

TABLE XXIV

Types of Pupils	GRADES				
	9	10	11	12	Total
Transfer	23.5	28.2	25.4	29.9	26.7
Non-transfer	30.5	29.7	28.3	39.	34.3

DISTRIBUTION OF THE SCORES OF THE TRANSFER STUDENTS

ON SOCIAL SCIENCE

TABLE XXV

Range of Scores	GRADES				
	9	10	11	12	Total
72-77	0	1	0	0	1
66-71	0	2	2	0	4
60-65	0	1	2	2	5
54-59	0	1	3	3	7
48-53	0	0	1	4	5
42-47	2	1	2	3	8
36-41	1	4	3	2	10
30-35	5	3	4	2	17
24-29	3	3	6	2	1 1
18-23	4	3	2	3	12
13-17	8	3	3	2	16
6-11	2	0	1	0	3
Total	25	25	29	23	102
Av. Score	22	26	35	41	34
Mean	23.3	43.9	39.1	40.1	36.6

average score. The greates achievement is shown by the sophomores and the senior show the least advancement. The range of scores by grades is, freshman, 6 to 47; sophomore, 12 to 77; juniors, 6 to 71; and the fourth year class 12 to 65. A grade of 77, made by a sophomore is the highest score recorded.

Table XXVI shows distribution of scores made by non-transfer students on social science.

The non-transfer students in each grade have scores above the seventy-fifth percentile. The difference in each grade is listed: freshman, 22.3; sophomore,21.1; junior class, 17.8; seniors, 16.1. The freshmen have the best score in achievement, however, the sophomores are within 1.2 of the first year class.

The seniors' score is considerably above average, but they show the least advancement of either of the four classes. There is an advantage of 16.2 points between the average for the entire group and the recorded score. The range of scores by grades is: freshman, 0 to 95; sophomore, 6 to 89; junior class, 0 to 95; and seniors, 0 to 89.

COMPARISON OF SCORES ON SOCIAL SCIENCE

The advantages recorded in favor of the non-transfer students are: freshmen, 21 points; sophomores, 3.2 points, junior, 13.5, and senior, 17.1. The greatest difference is between the freshman classes and the sophomore groups which

show the least difference. The non-transfer general average is 13.6 points higher than that of the general average for the transfer students.

DISTRIBUTION OF THE SCORES FOR THE NON-TRANSFER STUDENTS ON SOCIAL SCIENCE

TABLE XXVI

Ranges of Scores	GRADES				
	9	10	11	12	Total
90-95	1	0	1	0	2
84-89	0	1	2	1	4
78-83	1	0	3	3	7
72-77	4	2	2	7	15
66-71	1	2	0	4	7
60-65	1	1	3	3	8
54-59	3	2	1	2	10
48-53	1	3	1	4	9
42-47	0	7	4	2	13
36-41	3	2	2	2	9
30-35	2	2	1	2	7
24-29	2	3	1	0	6
18-23	5	1	1	0	7
12-17	2	0	2	1	5
6-11	0	1	0	1	2
0-5	1	0	1	1	3
Total	29	27	25	33	114
Av. Score	22	26	25	41	34
Mean	44.3	47.1	52.8	57.2	50.2

COMPARISON OF AVERAGE SCORES OF TRANSFER AND NON-TRANSFER STUDENTS ON SOCIAL SCIENCE

TABLE XXVII

Types of pupils	GRADES				Total
	9	10	11	12	
Transfer	23.3	43.9	39.1	40.1	36.6
Non-transfer	44.5	47.1	52.6	57.2	50.2

SUMMARY

1. The content of Chapter III concerns the original data of this investigation. Tables have been made and interpreted which serve as the foundation for the study.

2. The transfer students are more retarded and overage than the non-transfer students. The average age of the non-transfer pupil is five months younger than the average age of the transfer student.

3. The non-transfer students attend school three and seven-tenths more days than the transfer students.

4. The non-transfer pupils have a higher native ability than the transfer pupils.

5. The non-transfer students as a group rank higher in achievement as well as native ability in every test. The advantage in favor of the non-transfer student in each division of the test is as follows: Language and Literature, twenty-one and one-tenth points; Mathematics, six and one-tenth points; Natural Science, seven and six-tenth points, and Social Science thirteen and six-tenth points.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Many studies have been made to find whether or not the students of the one room rural school achieve as much as students of two or more teacher schools. However, not only can more evidence be used in this field, but the comparison of High School students who did their elementary work in the rural schools with those boys and girls who finished their elementary work in the grade school of either town or city, is a splendid field for research.

SUMMARY BASED ON READINGS IN RURAL EDUCATION

1. Consolidation of schools stimulates better attendance and increases the number of rural boys and girls who finish High School.

2. Sixty-five per cent of potential high school students are in school.

3. A greater percentage of those eligible for High school in the western states are enrolled than in any other section of the nation. The data show that the following percentages of eligibles for high school in the west, north, east, and south is eighty-nine and two-tenths, sixty-five and seven-tenths, seventy-three and five-tenths, thirty-three and twenty-five hundredths respectively. Utah with an average of ninety-five and six-tenths, exceeds the other states in the

table, and Georgia, with but twenty-eight per cent of her potential high school students in school, has the lowest average.

4. Consolidation of schools insures better trained teachers than those in rural schools.

5. One room schools are fast disappearing in this country, however, they still constitute fifty-six and seven-tenths per cent of all the schools of the nation.

6. Sixty per cent of the next generation's voting power is in the rural schools.

7. Village schools are consistently better than the rural schools.

8. Cities spend four to six times as much per classroom for school buildings and twenty to thirty times as much for equipment as rural schools.

9. Schools should teach children to live more abundantly.

10. Students in the rural schools do not attend as regularly as pupils in the city and town schools.

11. Buildings are poor, and equipment is more meager in rural schools than in the schools of towns and villages.

12. Scientific data on the advantages of consolidated schools is sorely needed.

13. The achievement of students of town and city schools is greater than that of rural schools.

14. Younger, less experienced, and more irresponsible teachers are found in the rural schools than in the urban schools.

15. The educational qualifications of rural teachers are more inadequate than those of city teachers.

16. The distribution of time among the various grades, and the wide variation of subject matter taught in the one and two teacher rural schools greatly reduces the possibility of as high pupil achievement as is possible in city schools.

SUMMARY OF FINDINGS BASED ON DATA FOUND IN THIS INVESTIGATION

1. A larger percentage of transfer pupils are retarded and over age than non-transfer students. The average age of the non-transfer students is five months younger than the average age of the transfer pupils. The non-transfer pupils attend school more regularly than the transfer students.

2. The non-transfer students attended 3.7 more days than the transfer pupils.

3. The non-transfer pupils were of higher mental ability than the transfer pupils.

4. According to the results obtained by giving the Sones-Harry High School Achievement Test, the non-transfer students rank higher in achievement on every test, than the transfer pupils.

The advantage in favor of the non-transfer group in each division of the test is: Language and Literature, twenty-one and one-tenth, Mathematics, six and one-tenth, Natural Science, seven and one-sixth, and Social Science, thirteen and six-tenths.

5. The final conslusion is, that the rural school is less efficient than the town or city school.

SUMMARY OF RECOMMENDATIONS BASED ON THE FINDINGS IN THIS STUDY

1. The small rural districts should be abolished in favor of a program of consolidation. The realization of the above statement would enable the pupils of the one, two, three, and four teacher rural schools to have an equal educational opportunity with those of other types of schools, by providing a larger taxing unit, and a resulting larger amount to spend for their educational needs.

2. The town and city schools should aid in giving country people a larger life and outlook. The Smith-Lever act is rendering much service in this regard and the schools of both the city and country should join hands with the agricultural colleges in the work.

3. The school should serve as a social center where the fundamental social instincts of youth,--recreation, play, friendship, and social life may be developed.

4. The state should raise the standard of certification for rural teachers.

5. The state should specify better library and instructional equipment and demand the fulfillment of those specified standards.

6. Funds provided by local initiative should be supplemented by the state, in order that salaries may be raised and funds be provided to assure the teacher of both tenure and more materials with which to work.

(Eventually the rural people will realize the inadequacy of their schools and demand the breaking down of old district lines and assurance that their children may have access to a larger educational unit.)

7. Rural teachers should display their ability as leaders and consistently encourage rural children to continue their education.

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