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An Evaluation of the Malaga Rural Elementary School

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Kornegay — Malaga Rural Elementary School

AN EVALUATION OF THE MALAGA RURAL ELEMENTARY SCHOOL

By

Raymond C. Kornegay

A Thesis

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MARSHALL

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INTRODUCTION

HISTORICAL DEVELOPMENT OF THE COMMUNITY AND THE SCHOOL

The Malaga community is the southernmost settlement in Eddy County, New Mexico. The village is seventeen miles southeast of Carlsbad, New Mexico, on U. S. Highway 85, and eighteen miles north of the southern boundary of the state. Early settlement and development of the community is traced in a survey made in 1941 by Johansen and Rossoff:

> Malaga was settled by several different groups. Residents of long standing relate that it was first settled by Mennonites who stayed a few years and left. They were followed by Swiss and Italian immigrants who settled at Malaga and Loving. The many grape vineyards planted by the Italians gave Malaga its name. About 1911 two real estate men developed the idea of a townsite, blocked off about three miles and sold land to people from all over the country, giving away acreages of dry land. Many newcomers, unable to succeed, were forced to sell their farms cheaply to a few resident farmers. About 1915 cotton began assuming importance as a cash crop. Many people brought from Mexico for picking cotton stayed. The high proportion of Spanish-Americans today is said to be due to an exodus of Anglo-Americans rather than an influx of Spanish-Americans.1

Early settlers relate that about 1910-15 the residents were extensively engaged in the growing of fruits and melons, but the lack of marketing facilities forced the farmers to turn to the production of cotton and alfalfa which at the present time are the main sources of income for the residents in the

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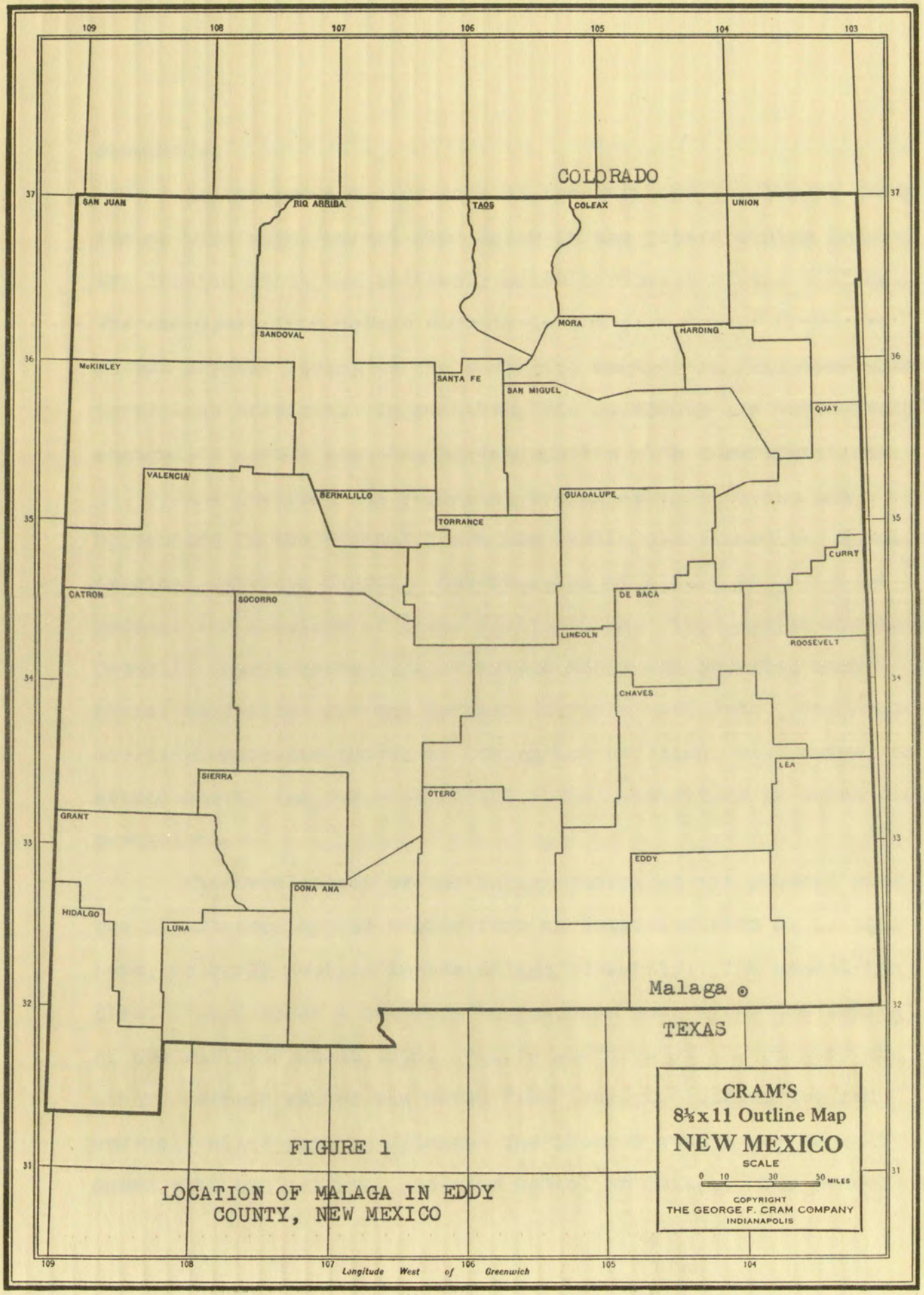
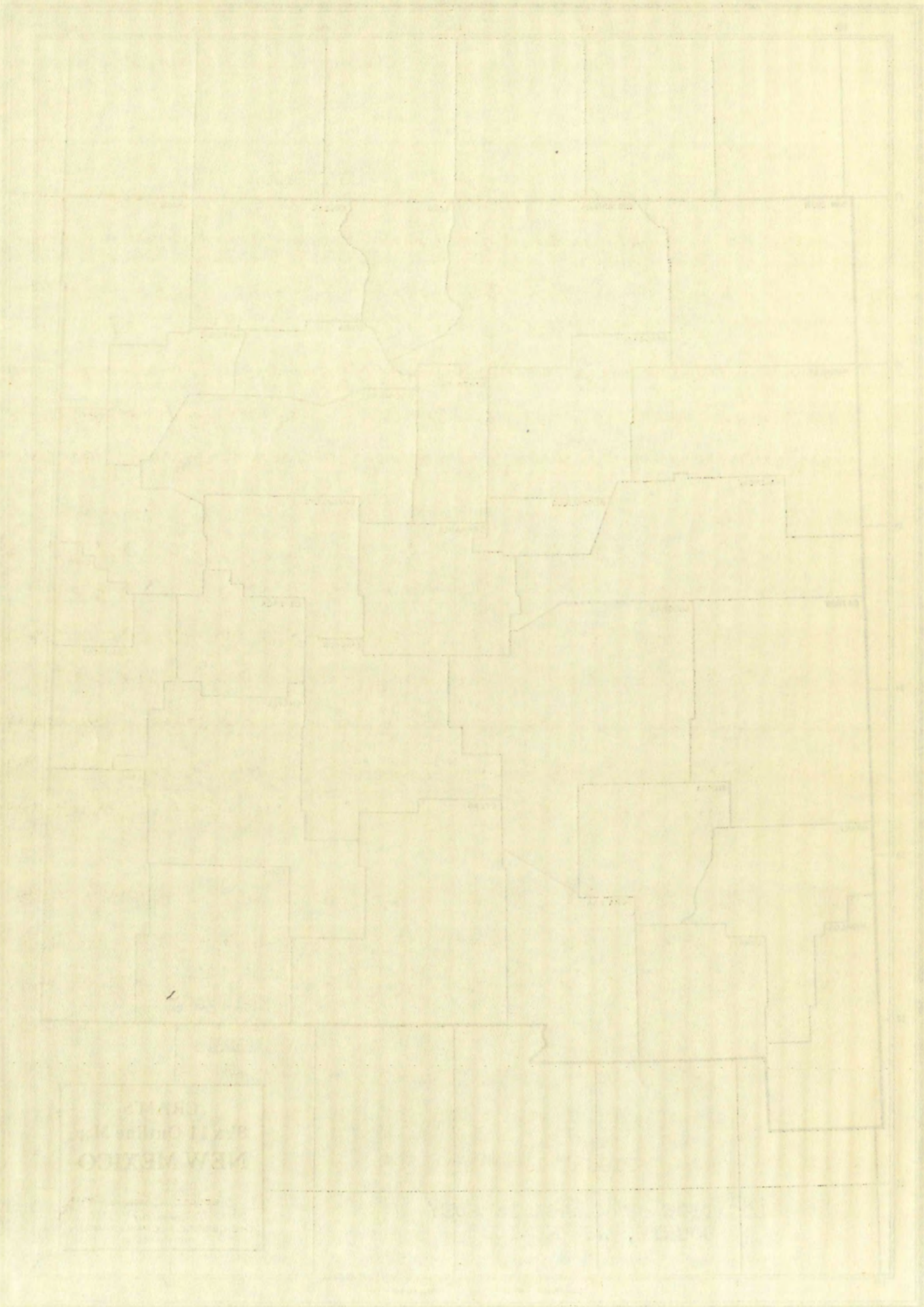
1 Sigurd Johansen and Milton Rossoff, Community Planning in Eddy County, New Mexico (Bulletin No. 297, Agricultural Experiment Station of the New Mexico College of Agriculture and Mechanic Arts. State College, New Mexico. December, 1942), p. 9.



CRAM'S
8½ x 11 Outline Map
NEW MEXICO
SCALE
0 10 30 50 MILES

FIGURE 1

LOCATION OF MALAGA IN EDDY COUNTY, NEW MEXICO



community.

At the present time some of the families supplement their income with wages earned from labor in the potash mining industry located about ten to twenty miles northeast of the village. The employees from Malaga commute to and from work. There are eleven persons living in the community engaged in full-time work in village services. In addition, six residents are extensively engaged in cattle ranching in conjunction with farm operations.

The institutions rendering social service to the 121 households in the community are the public school and the Spanish-American Catholic Church. Coordination of effort is deficient between the services of these institutions. The Spanish-American Catholic Church serves the religious needs and provides many social activities for the Spanish-American residents. The Anglo-American residents travel to Loving and Carlsbad, New Mexico, to attend church and for most of the social activities in which they participate.

The development of the Malaga School at its present site was ascertained by the writer from an interview with J. L. Williams, an early settler in the Malaga community. The school was first organized as a one-room institution soon after the coming of the railroad about 1895. Before the turn of the century another one-room school was moved from Lookout, located two and one-half miles west of Malaga. The Lookout school was consolidated with the original one-room school at Malaga. The school

continued to operate as a two-room institution until about 1910, when another room was added. About 1924 a fourth room was added, and a five-room school resulted in 1929.

In 1935 the addition of a sixth room, the construction of a combination auditorium-gymnasium, and the remodeling of the entire building provided the community with a modern school plant. The accommodations for elementary school activities are now equivalent to those which will be found in many modern schools. A three-bedroom residence for the school principal was established on the site in 1936.

The present site comprises two 400-foot-square city blocks which were landscaped with trees and lawn just after the remodeling of the plant in 1936. A system of surface ditches provides for the irrigation of the yard and trees.

The present organization of the school provides instruction for the first eight grades in addition to a pre-first or vocabulary room. The internal organization consists of combination rooms for the second and 3B grades, 3A and fourth grades, fifth and sixth grades, and seventh and eighth grades.

The instructional staff of the school consists of six teachers and a teaching principal. At the present time three of the teachers commute from their homes in Carlsbad to the school each day. The other teachers reside in the community.

The school employs the services of a full-time custodian. A hot lunch service was initiated in September, 1947, which nec-

essitated the construction of a separate lunchroom building and the full-time employment of two persons and the part-time employment of another. Eleven persons now comprise the total staff of the school.

The governing body of the school is the Eddy County Board of Education. Under this policy-making body the Eddy County School Superintendent has the responsibility for administration of the school program. Local educational leadership is delegated to the resident principal in charge at the school.

About 1895, on the approximate date of establishment of the school, only Anglo-American children attended. This condition continued to be true until about twenty-five years ago, when Spanish-American children began to attend. The latter now comprise 82.5 per cent of the school population.

For the first decade after Spanish-American children began to attend the school, segregation of the nationalities was practiced, even though admittedly in violation of the state constitution. In 1935 segregation of the Spanish-American group ceased. At the present time no distinction is made by the school in regard to segregation of the nationalities except in the pre-first or vocabulary class where the rudiments of English are taught to beginning Spanish-American children.

One hundred forty-three pupils were enrolled in the school in May, 1948. The school census as of April, 1948, listed 191 school-age persons in the community. Eight of the latter

were attending the high school at Carlsbad. The remainder of those on the school census and not enrolled in any school were either persons under eighteen years of age who had completed the eighth grade at Malaga or elsewhere or school-age youngsters excused to work.

were attending the high school at Garibaldi. The remainder of those on the school census and not enrolled in any school were either persons under eighteen years of age who had completed the eighth grade at Wallace or elsewhere or school-age young-sters excused to work.

MAIN SCHOOL BUILDING

SCHOOL GYMNASIUM

SCHOOL PRINCIPAL'S RESIDENCE.

FIGURE 2.

MALAGA SCHOOL BUILDINGS

MALAGA, EDDY COUNTY, NEW MEXICO.

CHAPTER I

THE PROBLEM

Millions of school children today attend small schools that are distinctly rural. In the past, a majority of the studies concerned with evaluating elementary schools have considered schools in urban rather than rural communities. Studies which will provide more information in regard to the problems present in small rural schools are needed in elementary education.

Statement of the problem. The purpose of this investigation is to survey and evaluate certain factors which affect pupil learning and development in the Malaga Rural Elementary School. These factors are: (1) the economic and educational status of the pupils' parents; (2) vocational interests and aspirations of the parents for their children; (3) the degree to which parental cooperation with the school is achieved; (4) the pupils' permanency of residence and regularity of school attendance; (5) the health status of the pupils and the availability of remedial services in the community; (6) the intelligence of the pupils; (7) the civic attitudes manifested by the pupils; (8) personal adjustment of the pupils; and (9) the effectiveness of counseling pupils at uniform intervals of time after subject-matter achievement tests were administered.

Delimitation of the problem. Only data obtained from parents, pupils, and others in the Malaga School District who were bona fide residents of the community are considered in this study. The study is further delimited to factors for which objective measurements could be obtained.

Importance of the problem. This study is important because the data obtained should provide the basis for educationally sound recommendations and revisions of instructional procedures in the Malaga School. The study should further assist the teaching staff better to understand and plan the educational program in order to reduce pupil retardation, which was found to be excessive in a previous study. Johansen and Rossoff report, in a study made of the community in 1941, that retardation in the Malaga School is much greater than in comparable situations:

> The extent of school retardation in the community is abnormally great, more than half of the 205 children attending being retarded in their school work. A tabulation of ages and position in school indicated that 53.6 per cent were retarded, 37.6 per cent were in grades normal for their ages, and 8.8 per cent were advanced. This is in striking contrast to the situation in some of the other communities in the county.[2]

Finally, in many small elementary schools in New Mexico, trained leadership to study local school and community problems is not available; consequently, the writer hopes that

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[2] Johansen and Rossoff, op. cit., pp. 9-10.

this investigation will assist others to make similar studies of their schools and communities. Only through the study of individual school communities can adequate progress evolve.

Definition of terms used. The term excused group as used in this study means those pupils attending the Malaga School whose parents were issued permits for the pupils to pick cotton.

The term non-excused group is applied to those pupils for whom permits were not issued to their parents, and consequently were not excused to pick cotton.

Organization of the remainder of the thesis. Chapter II is a review of previous studies related to various factors considered in this investigation. The methods of conducting the investigation in the Malaga community and school are described in Chapter III. An analysis of the data is presented in Chapter IV. In the fifth and final chapter, the conclusions and recommendations derived from the study are enumerated.

CHAPTER II

REVIEW OF RELATED LITERATURE

Studies indirectly related to this investigation are numerous. Only those which have a more direct relationship are considered in this chapter.

Johansen and Rossoff,[3] in a study of the socio-economic conditions in five rural communities in Eddy County, New Mexico, include the Malaga community and school. The investigation revealed that there were great cultural differences in the people residing in the Malaga community and that efforts looking toward the development of the educational, cultural, and economic potentialities were lacking. The investigators further stated that, in addition to cultural differences, the lack of leadership and economic resources were basic problems. Recommendations were made for initiation of a planned program for community betterment which would include the coordination of the efforts of school and community leaders, with greater emphasis placed upon educational values in order that existing educational facilities might be fully utilized.

In a survey of schools in Lea County, New Mexico, Manire[4]

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[3] Johansen and Rossoff, op. cit., p. 20.

[4] L. Z. Manire, "A School Survey of Lea County, New Mexico," (unpublished Master's thesis, The University of New Mexico, Albuquerque, 1936), pp. 48, 56-57.

found that the general achievement of pupils in the elementary schools was low; that reading was the most poorly taught subject and arithmetic was the best taught. The recommendation was made that standardized achievement tests be given each year to determine the accomplishment of the pupils.

In 1927 Nathan[5] conducted a survey of the intelligence and educational achievement of the pupils in a suburban county elementary school on the fringe of Albuquerque, New Mexico. The survey included the test scores of 148 pupils in Grades II through VIII. The investigator concluded that the pupils as a group ranked low in intelligence and that the educational achievement in the school was low. Nathan indicates that the sampling from which the above conclusions were drawn was small and applies only to the school in which the study was made. To be valid for generalizations of significance, more data would need to be studied concerning the occupational, cultural, health, economic, and general home conditions of the pupils included in the survey.

In a survey of the public schools in Estancia, New Mexico, in 1931, Nanninga[6] found that all the elementary grades

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[5] Verna Ruth Ryeburn Nathan, "An Intelligence and Educational Survey of a Suburban School," (unpublished Master's thesis, the University of New Mexico, Albuquerque, 1927), pp. 1-2, 31.

[6] Simon Peter Nanninga, Report of the Survey of the Estancia Public Schools With Suggestions Mutually Pertinent to Other Small School Systems in New Mexico (University of New Mexico Bulletin, Education Series, Vol. 5, No. 3, University of New Mexico Press, Albuquerque, 1931), pp. 41, 49.

except the sixth fell below the achievement test norms. He reported that retardation in achievement was least serious in the lower elementary grades and most serious in the upper grades. The second grade was .2 of a school grade below the test norms, the fourth grade was .4 of a school grade below, the fifth grade was 1.0 school grade below, the seventh grade was .8 of a school grade below, and the eighth and ninth grades were 1.7 grades below the norms. All of Estancia's elementary grades were found to be low in achievement in all subjects except reading, where two grades were found to be above the norms. Nanninga attributes this condition to a wide range of mental ability found in the different grades in the school and to the large percentage of Spanish-speaking children in the school with a language difficulty.

In a study of the relation between scholastic achievement and economic status as measured by the parental occupations of a group of graduates of Albuquerque High School, Barela[7] states that the findings of several investigators have indicated that children of superior economic levels have an advantage over children of lower economic levels in the performance of school work. The investigator found that the scholastic achievement

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[7] Fred Barela, "The Relation Between Scholastic Achievement and Economic Status as Shown by Parental Occupation," (unpublished Master's thesis, The University of New Mexico, Albuquerque, 1936), pp. 2, 46.

of the entire group was only fair and that the scholastic achievement of the graduates of Spanish extraction was inferior to that of the non-Spanish group. The investigator concluded that the lower scholastic achievement of the Spanish-extraction graduates was the result of their generally low economic status.

Tireman,[8] in a survey of reading in the elementary schools in New Mexico in 1930, found that the Spanish-speaking children made progressively lower marks than the English-speaking. He attributes this finding in part to the economic level of the children. Tireman compares the amount of reading material probably available for children in the home. The English-speaking children made use of their more favorable environment for reading and continued to read. The Spanish-speaking, with deficient material in English did little reading outside of school. A final conclusion was made that the reading ability of New Mexico children as a group was not up to standard and that more reading facilities should be provided for the pupils.

In a study of the schools in Belen, New Mexico, in 1929, Tolle[9] found that the elementary pupils in Grades IV to VIII

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[8] Loyd S. Tireman, "Reading in the Elementary Schools of New Mexico," Elementary School Journal, 30:621-26, April, 1930.

[9] Vernon O. Tolle, "Report of the Belen, New Mexico School Survey," (unpublished Master's thesis, The University of New Mexico, Albuquerque, 1929), p. 72.

inclusive were below standard grade norms in achievement in all the principal subjects except arithmetic. He states that the causative factor of such a condition was that the children in the Belen grade school were not classified so as to work most effectively.

The reading ability of 629 pupils in the three northern Arizona towns of Flagstaff, Williams, and Winslow, 43.8 per cent of whom were Spanish-speaking, was studied by Kelley[10] in 1935. In this study Kelley found that the Spanish-speaking children were more below the norms in total comprehension in reading than were the English-speaking. The Spanish-speaking group were progressively further below the norms the higher the grade level. The eighth grade was more than one year below the norm. The group of English-speaking children were slightly above the norm in all grades except the eighth, which was slightly below.

An average of the medians presented in Kelley's study for both the Spanish and English-speaking groups further showed that the pupil achievement in each grade substantiated the findings of other investigators in that the children in each of the grades were below standard norms. The average achievement of pupils of both language groups in the sixth

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[10] Victor H. Kelley, "The Reading Ability of Spanish and English-speaking Pupils," Journal of Educational Research, 29:209-11, November, 1935.

grade were nearest to the standard norms, being .1 grade below, and the pupils in the eighth grade were farthest below the standard norms, being .7 grade below.

Tireman,[11] in a report on the results of group tests given to 399 pupils in the original survey of San Jose School, concluded that a rise in the intelligence quotient of the pupils from grade to grade was due partly to the fact that "many of the duller children drop out of school before the seventh or eighth grade." The median intelligence quotient was found to be 76.3 for the pupils in Grades III through VIII.

In a study of the intelligence quotients of Spanish-American children, Page[12] administered both verbal and non-verbal mental ability tests, including the Stanford-Binet test, to one hundred pupils in Grades III through VII in five county schools near Albuquerque, New Mexico. She found the average Spanish-American intelligence quotient to be 77 on the combined verbal and performance tests. Page concluded that the results of this study showed no evidence that Spanish-American children suffered a language handicap in taking the group in-

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[11] Loyd S. Tireman, Results of Group Tests Given in the Original Survey of San Jose School, (University of New Mexico Bulletin, Education Series, Vol. 1, No. 2, University of New Mexico Press, Albuquerque, 1931), pp. 27-28.

[12] Dorothy C. Page, "Performance of Spanish-American Children on Verbal and Non-Verbal Intelligence Tests," (unpublished Master's thesis, The University of New Mexico, Albuquerque, 1931), pp. 38-39.

telligence tests.

There is a positive relation between intelligence and attendance, as found by Cutler.[13] In a five-year study of attendance in relation to the intelligence quotient, she found three out of five coefficients of correlation computed to be large enough to be statistically significant. The brighter children in the several third grades studied attended school more regularly than did the duller. Another factor which was considered in this study was the relation between achievement and attendance, which was found to be positive for each of the five years considered. The coefficients of correlation ranged from .09 to .49. None, however, were significant, and only one was large enough to be indicative that a greater number of days of school attendance affects achievement in subject matter.

In a recent survey of public education in New Mexico,[14] it was reported that in five representative counties studied 4562 pupils, or 28.2 per cent, were retarded. Further, retardation was 50 per cent greater in rural than in municipal schools. The report showed that 28.4 per cent of the pupils in Eddy County, the county in which Malaga is located, were retarded. The

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[13] Vera Cutler, "The Relation Between Intelligence and Attendance in the Third Grades of San Jose School," (unpublished Master's thesis, The University of New Mexico, 1936), pp. 1-24.

[14] John E. Brewton, director, Public Education in New Mexico (Nashville, Tennessee: Division of Surveys and Field Services, George Peabody College for Teachers, 1948), pp. 133-35, 149,168.

The principal cited causes of retardation in rural areas were: poor attendance, language difficulty, non-permanency of residence, low mentality, sickness and poor health, indifference of parents, and excessive work at home. The investigators recognized that there is no simple solution to the problem of retardation but recommended that a policy of social promotion be adopted in the schools. The teaching of reading was found to be greatly in need of improvement and a recommendation was made that a long range program for the improvement of reading be undertaken, particularly in the primary grades. The elementary social studies course of study was commended as a forward step in education for living and recommendation was made that state and county instructional leaders make a greater effort to implement the course in the schools.

CHAPTER III

METHOD OF CONDUCTING THE INVESTIGATION

The data for this study were secured from: (1) questionnaires sent to the parents of children attending the Malaga School; (2) opinionnaires administered to the teachers and pupils in the school; (3) records in the school office, the Malaga post office, the Malaga general store, and the New Mexico State Department of Education; and (4) administration of tests and rating scales to the pupils. Statistics pertaining to population were compiled from a community survey made by the writer. Other data were secured from a socio-economic community survey made by Johansen and Rossoff in 1942.

In order to ascertain the educational status of the parents, the highest grade which they attained in school was recorded from the pupils' accumulative records and from a section of the Sims Score Card for Socio-Economic status.

The socio-economic status of the parents. The socio-economic status fo the parents was determined by administering the Sims Score Card to seventy-one pupils in Grades III through VIII. The median scores were computed by grades for comparison with the score card norms. A tabulation of the newspapers and magazines received in the community homes was also made with the cooperation of employees at the Malaga store and post office.

Vocational interests of the parents for their children. An expression of vocational choices of parents for their children was secured from a questionnaire sent to the parents of 138 children. One hundred eighteen of these were completed and returned. The vocational choices were tabulated according to business, professional, clerical, and skilled and common labor classifications.

Parent participation in school activities. An opinionnaire to ascertain the extent of the parents' participation in school activities was administered to the school instructional staff.

Regularity of pupil school attendance. The regularity of pupils' school attendance was determined from the principal's monthly reports to the county superintendent. The figures for average daily attendance were compared with similar figures obtained from the State Department of Education office at Santa Fe for the rural schools of the state.

Health status of the community population. A health questionnaire made by the writer was administered to seventy-three children in Grades III through VIII in order to ascertain the frequency of utilization of health services. The Gates-Strang Health Knowledge test was also given to sixty-eight pupils in the same grades.

Intelligence of the pupils. The Otis Quick-Scoring Mental Ability Test, Beta, Form A, was administered to eighty-eight pupils in Grades III through VIII. The measurements obtained were compared with the usual intelligence criteria.

Civic attitudes of the pupils. The scores made by sixty-nine pupils on the Hill Test of Civic Attitudes were compared with the norms for the test.

Personal adjustment of the pupils. To determine the personal adjustment status of the pupils, the California Test of Personality, Elementary Series, was administered to seventy-three pupils. Medians were computed for each grade for comparison with norms provided with the test.

Pupil achievement. During the years 1945-46 through 1947-48, standardized achievement tests were administered to all of the pupils in Grades III through VIII at uniform intervals of six weeks. The pupils were subsequently counseled and given suggestions by their teachers concerning progress made in the various subject-matter areas of the tests. At the end of each year the medians for each grade were computed for comparison with the test norms. Because of retardation in reading ability, the Stanford Reading Achievement Test was administered to seventy-five of the pupils in Grades III through VIII after the testing program at six-week intervals was discontinued. Median scores were computed by grades for comparison with the test norms.

Pupil opinion on counseling. An opinionnaire was answered by all the pupils who participated in the testing and counseling program. Opinions of the pupils were sought as to the helpfulness of the program.

Comparison of the excused group and non-excused group of pupils in the school. For the excused and non-excused groups as defined in the definition of terms in Chapter I, the mean scores obtained by grades for the two groups on the Sims Score Card, the Otis Test of Mental Ability, the Hill Civic Attitude Test, the Gates-Strang Health Test, the Stanford Reading Test, and the batteries of the Stanford Achievement Test were compared. The standard deviation of the derived means, or $s = \sqrt{\frac{\Sigma(X_1-M_1)^2 + \Sigma(X_2-M_2)^2}{(N_1-1) + (N_2-1)}}$, the formula for standard deviation when two small independent samples are pooled, and the standard error of the difference of two means, $SE_D = S\sqrt{\frac{N_1 + N_2}{N_1 N_2}}$, were computed in order to determine the reliability of the difference between the means for small independent samples. The results of these computations are presented in Chapter IV.

CHAPTER IV

ANALYSIS OF THE DATA

In order to present a logical analysis of certain factors affecting pupil development, the data in this chapter are organized with descriptive marginal headings into three major divisions: (1) implications derived from parents' status; (2) implications derived from pupils' status; and (3) implications derived from regularity of school attendance.

I. IMPLICATIONS DERIVED FROM PARENTS' STATUS

Educational status of parents in the community. The educational status of the parents in the community as shown in Table I is exceptionally low. Only 17.5 per cent ever attended high school or college. Moreover, nearly one-half of the parents never received any formal education, and slightly more than one-third ever attended elementary school.

TABLE I

EDUCATIONAL LEVELS ATTAINED BY PARENTS IN THE MALAGA COMMUNITY

Number of cases	Per cent never attended school	Per cent attended elementary school	Per cent attended high school	Per cent attended college
193	44.6	37.9	10.7	6.8

In regard to the 44.6 per cent who never attended any school, the reader will recall that until 1925 only Anglo-American children attended the Malaga School, whereas the school population today is only 17.5 per cent Anglo-American. Consequently, the parents of 82.5 per cent of the school population are Spanish-Americans, the majority of whom have moved into the community during the past two decades from the Republic of Mexico, a country which until less than ten years ago did not have an effective system of public education. Such recent immigrants, like many of the early pioneer settlers of our country, are likely to be more concerned with the demands of human existence than with unknown values of formal schooling. As a result, a major problem of education confronting the school is accentuated by the increased responsibility for interpreting to these parents in an understandable manner the benefits to be derived from formal education. The educational problem is further increased by the demand placed upon the school to increase effectively the awareness of these parents of the duties inherent in democratic citizenship.

Socio-economic status of the homes. As measured by the Sims Score Card, the socio-economic status of the pupils' homes is sub-standard. The reader will find a copy of this score card in the Appendix on Page 67. Table II presents the results obtained for seventy-one pupils on the Sims Score Card when compared with the norms established for the general population of

TABLE II

LEVELS OF SOCIO-ECONOMIC STATUS OF THE HOMES OF MALAGA SCHOOL PUPILS AS MEASURED BY THE SIMS SCORE CARD

Malaga Homes				Levels of Socio-Economic status on the Sims Score Card									
Grade	Number of pupils	Range of scores	Median	Indeterminately high 29.3-36.0	Highest 24.6-29.2	Very high 17.7-24.5	High 13.3-17.6	Medium high 10.1-13.2	Medium 7.6-10.0	Medium low 5.2-7.5	Low 3.3-5.1	Very low 1.9-3.2	Lowest 0.0-1.8
3	8	0-26	3.0									X	
4	18	0-23	4.5								X		
5	15	1-12	6.2							X			
6	13	3-19	6.5							X			
7	12	1-12	7.5							X			
8	5	7-14	10.5					X					
Total	71	0-26	6.4							X			

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the nation. The possible distribution of scores on the Sims Score Card ranges from zero to thirty-six. The grade medians of scores for Malaga pupils' homes indicates that the socio-economic status is considerably below average.

The sub-standard socio-economic condition of the homes as measured by the Sims Score Card indicates the basic difficulty faced by many of the parents in keeping their children in school. In too many instances the parents must be more concerned with providing food, shelter, and clothing for the family than with educational pursuits for their children. Consequently, interest in their childrens' school activities and achievements is frequently low. This evidence concerning the low socio-economic status of the homes indicates the need for school and community leaders to plan cooperatively a school program which better fits the needs of the parents and children in their endeavor to adjust to their environment.

The sub-standard socio-economic condition of the homes is further revealed in Table III by the dearth of reading materials

TABLE III

DAILY AND PERIODICAL LITERATURE
RECEIVED IN THE MALAGA HOMES

Total number of homes	Number of homes receiving a daily paper	Number of homes receiving a weekly magazine	Number of homes receiving a monthly magazine
121	22	63	29

found in the homes. Only twenty-two of the 121 homes received a daily newspaper. This would seem to indicate a lack of interest or concern with current affairs as a result of the low economic status mentioned above. Additional evidence of a deficiency of information for meeting the problems of modern living is shown by the fact that 121 homes receive only sixty-three copies of a weekly magazine and twenty-nine copies of a monthly magazine. Additional reading material in the homes is probably negligible. This scarcity of reading material in the homes portrays the lack of opportunity of many of the pupils to read outside the school. In order to help alleviate this lack of opportunity to read, the school staff should increase the library facilities by the addition of childrens' novels and periodicals, supplementary readers, current events magazines, and articles well suited to childrens' interests.

The vocational preferences of the parents for their children are presented in Table IV. The reader will note that more than one-half or 57 per cent of the expressed preferences were for skilled and common labor vocations. Professional vocations were listed as a second preference and clerical and business vocations were third and fourth respectively. The greater preference shown for the skilled and common labor vocations indicates that the parents were realistic in marking preferred vocations for their children on the check-list. Considering the low socio-economic condition found to exist in the homes, preferences for

TABLE IV

VOCATIONAL PREFERENCES OF PARENTS FOR THEIR CHILDREN

	Preferences				
	Skilled and common labor vocations	Professional vocations	Clerical vocations	Business vocations	Totals
Frequency of preference	105	41	27	12	185
Frequency percentage	57	22	15	6	100

vocations in the other classifications would have been more in the realm of fantasy, since the opportunities for training in the professional, business, and clerical vocations would scarcely be attainable.

These expressions of vocational preferences by the parents suggest that the realistic attitude shown establishes a desirable basis for the school to provide information about vocational opportunities for youth in various fields of endeavor.

Parent attendance at school activities. In Table V are presented the estimates made by the teaching staff of the Malaga School concerning the extent of parents' attendance at school activities for the year 1947-48. The attendance of parents was estimated to be approximately 72 per cent at those school activities in which pupils participated. On the other hand, parent

TABLE V

ATTENDANCE OF PARENTS AT ACTIVITIES OF THE MALAGA ELEMENTARY SCHOOL DURING THE YEAR 1947-48 AS ESTIMATED BY THE TEACHING STAFF

	Type of Activity										
Teacher	Per cent at school carnival	Per cent at Christmas program	Per cent at graduation exercises	Per cent at open house	Per cent at inspection of school cafeteria	Per cent at classroom visitation	Per cent at basketball games	Per cent at registration day	Per cent at school assemblies	Per cent at softball games	Per cent would attend P. T. A.
Number 1	75	85	85	75	75	10	35	10	10	5	10
Number 2	85	85	85	85	85	35	10	5	2	1	10
Number 3	85	60	85	85	85	5	35	20	10	5	10
Number 4	35	50	50	50	35	50	20	8	6	10	20
Number 5	75	75	60	75	50	1	3	4	1	1	10
Number 6	85	85	75	50	75	50	35	5	5	5	10
Mean concensus of Estimates	73.3	73.3	73.2	70	67.5	25.2	23	8.7	5.7	4.5	11.7

attendance was estimated to be small at those school activities in which pupil participation was low. The teachers estimated that approximately 12 per cent of the parents would attend Parent-Teacher Association meetings if such an association was organized. The greater attendance of parents at school activities in which pupils participated indicates that the organization of a Parent-Teacher Association in which pupils appeared on the programs might be an advisable medium for increasing the parents' interest and information about the school. Especially does this procedure appear advisable during the early stages of organization. The writer wishes to state, however, that pupil participation in Parent-Teacher Association meetings should not be utilized to the extent that the success of the organization depends upon pupil exploitation.

From the foregoing analysis of various aspects of parent status in the Malaga community, the evidence seems to indicate that the school must be concerned with parent education as well as child education. The school personnel need to assume more responsibility for leadership in a program of community education.

II. IMPLICATIONS DERIVED FROM PUPILS' STATUS

Regularity of school attendance. The percentages of pupils in average daily attendance at the Malaga Elementary School and in the rural schools of New Mexico are compared for a four-year period in Table VI. There is not any significant differ-

ence in the percentages of average daily attendance, the average at the Malaga School being 79 per cent for the period in comparison with 78 per cent for rural schools in the state.

TABLE VI

PERCENTAGES OF PUPILS IN AVERAGE DAILY ATTENDANCE AT THE MALAGA ELEMENTARY SCHOOL AND IN RURAL SCHOOLS OF NEW MEXICO FOR THE YEARS 1943-44 THROUGH 1946-47

Year	Per cent of enrollment in average daily attendance at Malaga Elementary School	Per cent of enrollment in average daily attendance in rural schools of New Mexico
1943-44	74.0	76.0
1944-45	72.0	79.0
1945-46	84.0	78.0
1946-47	86.0	80.0
Average	79.0	78.0

However, the reader should note that the averages for both the Malaga School and the rural schools in the state are low. There should be no attitude of complacency in the Malaga instructional staff because attendance statistics are comparable to those for the rural schools in the state. It is encouraging to note, however, that the percentage of pupils in average daily attendance at the Malaga School has noticeably increased for the last two years of the period.

Medical service available and health knowledge. Percentages of pupils who indicated on the health questionnaire that they had at some time or other received pediatric or medical services are presented in Table VII. A quotation attrib-

TABLE VII

PERCENTAGES OF PUPILS IN THE MALAGA SCHOOL AND IN NEW MEXICO RECEIVING PEDIATRIC SERVICES COMPARED WITH AN INDEX FOR THE NATION OF 100 PER CENT

Number of Malaga School pupils	Per cent which received service that attend Malaga School	Per cent which received service in state	National Index of 100 per cent
73	22.7	65	100

uted to a report of the American Academy of Pediatrics states:

> In a report of the American Academy of Pediatrics study of child health services in New Mexico, the report asserts: . . . A new yardstick has been developed to measure medical care to children and employing this device we find children in New Mexico are receiving about 65 per cent of total medical care as compared to children in the country as a whole, and only 39 per cent of the amount of service given children in the state with the highest rating.[15]

In making the comparisons presented in this study, the writer wishes to acknowledge that the "yardstick" used in the American Academy of Pediatrics report to secure the cited norms is not known. But because of the nature of pediatric services

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[15] "Poor Record in Child Care," editorial in The Daily Current-Argus, (Carlsbad, New Mexico), May 16, 1949.

as usually understood, the following comparisons seem warranted.

If the 22.7 per cent of the seventy-three pupils who had received pediatric service in the Malaga School is comparable to the "yardstick criteria," the Malaga pupils received only approximately one-third the amount of pediatric services received by children in New Mexico and a little less than one-fourth that received by children in the nation. Obviously, the pupils attending Malaga School are shown to be receiving far too little medical care. Such evidence emphasizes the need for effort to be cooperatively made by the parents, school leaders, and County Health Office to supply additional corrective health service to the children in the community.

Data on the health knowledge of the pupils in Malaga School are presented in Table VIII.

TABLE VIII

MEDIAN SCORES MADE BY PUPILS IN THE MALAGA SCHOOL ON THE GATES-STRANG HEALTH KNOWLEDGE TESTS COMPARED WITH MEDIAN SCORES MADE BY PUPILS IN RURAL SCHOOLS OF THE NATION

Grade	Cases	Median Gates-Strang	Median Malaga School
3-4	28	25.5	21.5
5-6	23	37.5	32.2
7-8	18	41.5	40.5

The median score of 21.5 for Grades III and IV in the Malaga School was lower than the national median score of 25.5 for rural school pupils. Similarly, the median scores for the remaining two pairs of grade combinations were from one to five points below the national medians for rural schools. The evidence presented indicates that the pupils are not so retarded in knowledge of good health practices as in some other areas of achievement which will be shown later. However, merely because the difference between the norms for the health test and the scores made by Malaga pupils is not excessive is there reason for complacency. The objective must be to exceed the norms established for the rural schools of the nation.

Intelligence of the pupils. The median intelligence quotients as measured by the Otis Test of Mental Ability for eighty-eight pupils in Grades III through VIII in the Malaga School are presented in Table IX. The reader will observe that there is no significant difference in the median intelligence quotients of the pupils in any of the grade combinations. The median of 86.5 for eighty-eight pupils is comparable to the findings of Tireman[16] and of Page.[17] The reports of the above investigators showed med-

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[16] Loyd S. Tireman, Results of Group Tests Given in The Original Survey of San Jose School (University of New Mexico Bulletin, Education Series, Vol. 1, No. 2. University of New Mexico Press, Albuquerque, 1931), p. 27.

[17] Dorothy C. Page, "Performance of Spanish-American Children on Verbal and non-Verbal Intelligence Tests," (unpublished Master's thesis, The University of New Mexico, Albuquerque, 1931), p. 31.

ian intelligence quotients of 76.3 and 77 for Spanish-speaking groups as measured by tests. The reader will recall that the Malaga School population is over four-fifths Spanish-speaking.

TABLE IX

RANGE AND MEDIAN INTELLIGENCE QUOTIENTS OF THE PUPILS IN THE MALAGA SCHOOL ON THE OTIS QUICK-SCORING MENTAL ABILITY TEST, BETA, FORM A

Grade	Number of pupils	Range Malaga School	Median Malaga School	Normal
3-4	35	64-129	89	100
5-6	31	63-122	84.7	100
7-8	22	66-111	86.2	100
Total	88	63-129	85.5	100

The below-normal intelligence quotients obtained for the Spanish-speaking pupils in this study, and reported in others, suggests that the intelligence tests used are not valid for measuring the mental ability of the Spanish-speaking population. The low scores may well be due to inability in reading rather than to low native intelligence.

These test results, purporting to represent the mental ability of Spanish-speaking pupils in Malaga and other schools, indicate that the English language should be stressed in all school activities in order to help the pupils develop a better

understanding and use of English.

Civic attitudes of the pupils. The Hill Civic Attitude Test medians cited in Table X are based on more than fifty thousand scores from thirty-seven states. No median score is given in the Hill Civic Attitude Test Manual for Grades III and IV. The median score of 10.4 for Grades V and VI is 1.2 points lower than the nation-wide median of 11.6. The median score of 11.8 for Grades VII and VIII is 1.7 median score points below the nation-wide median of 13.5.

TABLE X

MEDIAN SCORES MADE ON THE HILL CIVIC ATTITUDE TEST BY PUPILS IN THE MALAGA SCHOOL COMPARED WITH NATION-WIDE MEDIAN SCORES ON THE TEST

Grade	Number of pupils	Range of scores Malaga School	Median score Malaga School	Hill nation-wide median
3-4	22	4-17	9.5	
5-6	23	4-16	10.4	11.6
7-8	20	8-17	11.8	13.5

The above comparisons show that the pupils in the Malaga School are below the norms for a standardized test on civic attitudes. This would seem to indicate that more training in school in desirable human relationships as well as greater stress on citizenship development is needed.

Personal adjustment of the pupils. From Table XI the reader may ascertain the personal adjustment status of seventy-three pupils in the Malaga School as measured by the California Test of Personality. In relation to the norms on the different sections of the test the pupils are below normal on each, being ten points below the norm in self-adjustment, eight points below in social adjustment, and nine points below in total adjustment.

TABLE XI

MEDIAN PERCENTILE SCORES MADE BY PUPILS IN THE MALAGA SCHOOL ON THREE SECTIONS OF THE CALIFORNIA TEST OF PERSONALITY

Section of the test	Percentile Rank: No. of pupils 1-25	No. of pupils 26-50	No. of pupils 51-75	No. of pupils 76-100	Total No. of pupils	Malaga Median	Test Median	Diff. + or -
Self adjustment	21	33	14	5	73	40	50	-10
Social adjustment	27	20	17	9	73	42	50	-8
Total adjustment	27	26	15	5	73	41	50	-9

It is probable the pupils would show better adjustment on a test standardized on their native Spanish-American culture.

They are possibly normally adjusted in personal and social relations within their native habitat. However, the pupils live surrounded by cultural patterns created by English-speaking people. Consequently, the deficient personal adjustment shown to exist implies a responsibility for the school staff to study further the personality development of the pupils. Particularly in the social studies curriculum is planning necessary in order to implement ways and means to attain better personal adjustment of the pupils.

Total scholastic achievement of the pupils. The status of the pupils in total scholastic achivement at each yearly interval during the years 1944-45 through 1947-48 is presented in Table XII. As one reads horizontally the achievement of each grade for each successive year, the third grade most nearly attained the standardized achievement test norms. Achievement in this grade varied from .6 to .2 years below the norm, exclusive of the year 1946 when the third grade showed achievement .1 years above the norm. In no instance in the four yearly intervals did the class median exceed the test norm for a class in the fourth grade. Achievement varied from .1 to 1.1 years achievement below the test norms. Similarly, the fifth grade class median was found to fall below the test norm at each yearly interval, varying from .7 to 2.0 years retardation. Further, achievement in the sixth grade varied from .2 to 1.7 years below the test norm. Ever greater retardation is revealed for Grades VII and VIII,

measured achievement falling in some years as much as three years below the test norms.

TABLE XII

STANFORD ACHIEVEMENT TEST NORMS AND CLASS MEDIAN LEVELS OF ACHIEVEMENT IN GRADES III THROUGH VIII IN THE MALAGA SCHOOL FOR FOUR CONSECUTIVE YEARS

	Year's Achievement				
Grade	Stanford achievement test norm after year's work	Class median May 1945	Class median May 1946	Class median May 1947	Class median May 1948
3	4.0	3.4	4.1	3.7	3.8
4	5.0	3.9	3.9	4.8	4.0
5	6.0	5.2	4.0	5.3	4.9
6	7.0	5.6	5.6	6.8	5.3
7	8.0	5.3	5.6	7.8	7.3
8	9.0	6.1	5.9	6.9	7.1

In summary of the data relating to scholastic achievement of the pupils in Grades III through VIII in the Malaga School, the scholastic achievement in these grades is definitely below the grade norms for the test. These findings of below-normal achievement of the pupils in the Malaga School are in

agreement with those found by Nanninga[18] and by Tolle[19] for similar grades in other schools in New Mexico.

There is no easy solution to the problem of retardation in achievement at the Malaga School, and perhaps the school would be wasting time to adopt a policy of social promotion. Evidence is presented later in this chapter which indicates that pupil retardation in achievement is very directly related to the matter of regularity in school attendance. Holding such evidence in abeyance for the present, the writer wishes to state in passing that the attainment of a satisfactory solution to the problem of regularity in pupil attendance at the same time offers encouragement for partial solution of the retardation problem.

Pupil opinion on counseling. The attitude of the pupils in the school in Grades III through VIII regarding the procedure of their teacher talking individually with them about their rating on the achievement tests at each six-weeks interval is presented in Table XIII. It is apparent from the data that the pupils considered counseling by their teachers helpful to them.

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[18] Simon Peter Nanninga, Report of the Survey of the Estancia Public Schools with Suggestions Mutually Pertinent to Other Small School Systems in New Mexico (University of New Mexico Bulletin, Education Series, Vol. 5, No. 3, University of New Mexico Press, Albuquerque, 1931), pp. 41-42.

[19] Vernon O. Tolle, "Report of the Belen, New Mexico School Survey," (unpublished Master's thesis, The University of New Mexico, Albuquerque, 1935), p. 98.

TABLE XIII

PUPIL OPINION ON THE HELPFULNESS OF PUPIL COUNSELING

Number of responses					
Helped very much	Helped much	Helped some	Helped very little	Did not help	Total
19	20	29	6	4	73

However, because of the condition of continuing sub-standard achievement in subject matter shown in Table XIII, the writer is doubtful that the pupils distinguished between the counseling being helpful and their pleasure in talking with the teacher. Since the median levels of achievement in the different grades showed no significant gain, one can only conjecture as to the effectiveness of a procedure of counseling pupils at the above grade levels on achievement test results and there seems to be no basis for a recommendation for the continuance of such a procedure in the Malaga School. On the basis of achievement shown in subject matter one could hardly imply that counseling of pupils at the elementary grade levels in school would help pupils to attain a higher level of achievement in subject matter. However, counseling and guidance of pupils to help them in personal and social adjustment is probably necessary at all grade levels.

Pupil reading achievement. Due to the small number of pupils in each of the grades, the medians of reading achievement

were determined from scores made by the pupils in pairs of consecutively combined grades. Likewise, the norms for the Stanford Reading Tests presented in Table XIV were determined from an average of the two norms given for the comparable grade combinations.

TABLE XIV

COMPARISON OF THE STANFORD READING ACHIEVEMENT TEST NORMS WITH THE LEVELS OF READING ACHIEVEMENT ATTAINED BY PUPILS IN THE MALAGA SCHOOL

	Year's Achievement	
Grade	Stanford norm	Malaga School median
3-4	3.9	3.2
5-6	5.9	4.1
7-8	7.9	6.0

The reader will note from Table XIV that the Malaga School median of 3.2 year's achievement in combined Grades III and IV is .7 years below the Stanford norm for these grades and that achievement for the remaining two grade combinations is approximately two years below the test norms.

The below-normal reading achievement of the pupils in the Malaga School is in agreement with the findings of Tire-

man[20] and Kelley[21] cited in Chapter II of this study. One may conclude in agreement with Tireman that the below-normal reading ability is, as previously shown, due to some extent to the low economic status of the homes from which the children come, with the attendant dearth of reading material available. To combat these conditions making for reading retardation, the school must make available more children's reading materials.

III. IMPLICATIONS DERIVED FROM THE REGULARITY OF SCHOOL ATTENDANCE

Table XV presents the means, difference between the means, the standard error of such difference and the derived critical ratio for forty-one pupils in Grades III through VIII on the Sims Score Card for Socio-Economic Status who were excused from school in the fall of 1948 to pick cotton and the remaining twenty-nine pupils who were not excused.

In the cotton-picking season, pupils whose parents request it are usually excused for ten weeks or fifty school days. Thus these pupils actually are absent from school nearly one-third of the school year. The critical ratio of 4.81 insures

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[20] Loyd S. Tireman, "Reading in the Elementary Schools of New Mexico," Elementary School Journal, XXX (April, 1930), 624-26.

[21] Victor H. Kelley, "The Reading Abilities of Spanish and English Speaking Pupils," Journal of Educational Research, XXIX (November, 1935), 209-11.

that the obtained difference of 5.10 between the means in favor of the non-cotton picking group is significant; that is,

TABLE XV

THE MEANS, DIFFERENCE BETWEEN THE MEANS, STANDARD ERROR OF THE DIFFERENCE, AND CRITICAL RATIO BETWEEN THE MEANS OF THE SCORES ON THE SIMS SCORE CARD FOR SOCIO-ECONOMIC STATUS MADE BY THE PUPILS EXCUSED AND NOT EXCUSED TO PICK COTTON

Grades	Group	Number of pupils	Mean	Difference	Standard error of the difference	*Critical ratio	Probability
3-8	Pupils excused to pick cotton	41	4.76				
	Pupils not excused to pick cotton	29	9.86	5.10	1.06	4.81	Significant

$$*\text{critical ratio} = \frac{\text{Difference between the means}}{\text{Standard error of the difference}}$$

the true difference is greater than zero and not due to the element of chance in the sampling, since the critical ratio is greater than 3.0. This difference indicates that the pupils excused to pick cotton were from homes of lower economic status which made it actually necessary for the family to increase

their income by having the children excused from school to pick cotton. These findings increase the writer's confidence in the validity of the Sims Score Card and at the same time render assurance that the issuing of work permits for children has been performed with discrimination. Obviously, however, the irregularity of pupil attendance, as will be shown later, is one of the greatest factors affecting pupil learning in the school and one for which the finding of a satisfactory solution is a most difficult problem.

The pupils excused from school to pick cotton will be referred to in the remainder of this chapter as the excused group and the pupils not excused will be referred to as the non-excused group. The writer also wishes to point out at this time that the number of pupils comprising the two groups for different tests will vary due to the factor of irregularity in attendance on the days the tests were administered. Since the pupils comprising the two groups were about equally divided in terms of grade placement and chronological ages, the difference in the means between the intelligence quotients obtained on the Otis Test of Mental Ability were computed rather than between raw scores made on the test.

The reader will observe from Table XVI that the critical ratio between the means of the excused and the non-excused groups on the Otis Test of Mental Ability is 66.7, an extremely high critical ratio which insures that the true difference between the

computed means is greater than zero. Such a significant critical ratio in favor of the non-excused group indicates this group has a substantially greater mental ability than the excused group as measured by the test. The writer cautions, how-

TABLE XVI

THE MEANS, DIFFERENCE BETWEEN THE MEANS, STANDARD ERROR OF THE DIFFERENCE, AND CRITICAL RATIO BETWEEN THE MEANS OF THE SCORES ON THE OTIS TEST OF MENTAL ABILITY MADE BY THE PUPILS EXCUSED AND NOT EXCUSED TO PICK COTTON

Grades	Group	Number of pupils	Mean	Difference	Standard error of the difference	Critical ratio	Probability
3-8	Excused	45	78				
	Non-excused	43	96	18	.27	66.7	Significant

ever, that such decisively lower mental ability as indicated by the test for the excused group may not actually be a true measure of mental capacity for the pupils comprising this group. Performance on the Otis Test of Mental Ability may be affected by the factor of successful achievement and knowledge learned in school subjects. In the case of the excused group, irregu-

larity of school attendance may have afforded conditions partially invalidating the test for this group. Nevertheless, whether due to actual inherent mental differences or due to conditioning factors, the presence of two such distinct groups accentuates the instructional problems in the school. It is not the purpose of this study to outline a plan of instruction which will alleviate the problem of individual differences, but the implication is clear that a program based on individual differences is imperative. The school administration may well consider the advisability of eliminating the traditional grade system and reorganization on a pupil performance basis.

The critical ratios computed between the means attained by the excused and the non-excused groups on the Hill Test in Civic Attitudes are presented in Table XVII. The critical ratio of .25 between the means of the excused and the non-excused groups in Grades III and IV was insignificant; that is, the slight difference between the means, though in favor of the non-excused group, may be due to the element of chance in the sampling and a true difference in the groups may not exist. A true difference of greater than zero is manifested between the means of the groups in combined Grades V and VI, as indicated by the critical ratio of 5.08. In combined Grades VII and VIII the critical ratio of 8.14 in favor of the non-excused group is more than two times the magnitude necessary to insure a true difference between the means of the two groups. Thus, two of

the three combinations of grades indicate a true difference greater than zero between the means in favor of the non-excused group. Thus the children in regular attendance and from homes of a higher socio-economic status manifest more desirable civic attitudes as measured by the test.

TABLE XVII

THE MEANS, DIFFERENCES BETWEEN THE MEANS, STANDARD ERROR OF THE DIFFERENCES, AND CRITICAL RATIOS BETWEEN THE MEANS OF THE SCORES ON THE HILL TEST IN CIVIC ATTITUDES MADE BY THE PUPILS EXCUSED AND NOT EXCUSED TO PICK COTTON

Grades	Group	Number of pupils	Mean	Difference	Standard error of the difference	Critical ratio	Probability
3-4	Excused	8	9.88				
	Non-excused	14	10.0	.12	.47	.25	Insignificant
5-6	Excused	11	8.82				
	Non-excused	12	10.75	1.93	.38	5.08	Significant
7-8	Excused	14	11.43				
	Non-excused	7	13.71	2.28	.28	8.14	Significant

One may only conjecture as to what extent the measured deficiency of the excused group in contrast with the non-excused group is due to: decreased contact with school training in cit-

izenship; insufficient ability to comprehend the verbalism in the test; or the possible inculcation of greater anti-civic attitudes because of the extremely low socio-economic status of their home environment. Regardless of the causal factors, the same implication for the school as previously found is apparent; namely, greater attention must be given to this group and, in this instance, emphasis on citizenship training.

In Table XVIII the relationships between the means obtained on the Gates-Strang Health Knowledge Test by the excused and the non-excused groups for the indicated grade combinations are presented. The critical ratio of 10.04 between the means in favor of the non-excused group in combined Grades III and IV exceeds by three times the value necessary to guarantee a true difference greater than zero. The critical ratios for the remaining two grade combinations are likewise statistically significant in favor of the non-excused group. As a result one can state with certaintly that the non-excused groups are superior to the excused groups in health knowledge for all grade combinations, since the derived critical ratios are all greater than 3.0.

Since the same trend is apparent for the excused and non-excused groups as revealed in the previous tables, namely, achievement measured is in favor of the non-excused group, one may conclude that a unique educational problem confronts the school educational staff. Not only must effort be expended to

TABLE XVIII

THE MEANS, DIFFERENCES BETWEEN THE MEANS, STANDARD ERROR OF THE DIFFERENCES, AND CRITICAL RATIOS BETWEEN THE MEANS OF THE SCORES ON THE GATES-STRANG HEALTH KNOWLEDGE TEST MADE BY THE PUPILS EXCUSED AND NOT EXCUSED TO PICK COTTON

Grades	Group	Number of pupils	Mean	Difference	Standard error of the difference	Critical ratio	Probability
3-4	Excused	14	17.86				
	Non-excused	14	27.00	9.14	.91	10.04	Significant
5-6	Excused	14	25.29				
	Non-excused	9	35.56	10.27	1.13	9.09	Significant
7-8	Excused	13	36.31				
	Non-excused	5	46.40	10.09	1.26	8.00	Significant

improve the achievement of the non-excused group but, at the same time, the gap between the two groups must be narrowed. The evidence seems clear that no other factor explains so well the retardation found by Johansen and Rossoff as the marked sub-standard achievement of the pupils excused ten weeks each year to pick cotton.

The reader may observe in Table XIX the relationship be-

tween the means of the scores of the excused and the non-excused groups made on the Stanford Reading Test. The critical ratio of 8.55 between the means of the excused and the non-excused groups in combined Grades III and IV insures that the true difference is greater than zero.

TABLE XIX

THE MEANS, DIFFERENCES BETWEEN THE MEANS, STANDARD ERROR OF THE DIFFERENCES, AND CRITICAL RATIOS BETWEEN THE MEANS OF THE SCORES ON THE STANFORD READING TEST MADE BY THE PUPILS EXCUSED AND NOT EXCUSED TO PICK COTTON

Grades	Group	Number of pupils	Mean	Difference	Standard error of the difference	Critical ratio	Probability
3-4	Excused	17	33.12				
	Non-excused	14	35.00	1.88	.22	8.55	Significant
5-6	Excused	16	37.44				
	Non-excused	10	53.60	16.16	.58	27.86	Significant
7-8	Excused	12	57.66				
	Non-excused	6	77.83	20.19	.67	30.13	Significant

This difference in favor of the non-excused group insures that the non-excused group actually has superior reading ability

and that it is not a result of chance sampling. For the remaining combined grades presented in the table, the critical ratios are even more significant in terms of magnitude. As a result, critical ratios of the differences between the means of the two groups in each grade classification in favor of the non-excused groups shows beyond a questionable doubt that the pupils comprising the non-excused group possess greater reading ability. This finding permits the writer to conclude that the principal cause of the excused group's marked inferior achievement on the Otis Test of Mental Ability is probably due to their deficiency in reading skills. But the excused group's inferior achievement on both the Otis Test of Mental Ability and the Stanford Reading Test must focus the attention of the school staff on the basic factor; namely, satisfactory achievement depends to a large extent on regularity of attendance during the entire school year.

The same trend as previously presented is evident in Table XX, which presents the results obtained by the excused and non-excused groups on batteries of the Stanford Achievement Test. The differences in the derived means in favor of the non-excused groups are in all instances statistically significant. Two of the critical ratios presented are very high.

It would seem from the evidence presented in Tables XV through XX that a problem of adult education is present as much as a problem of child education. Parents must see the necessity and value of having their children attend school regularly and

TABLE XX

THE MEANS, DIFFERENCES BETWEEN THE MEANS, STANDARD ERROR OF THE DIFFERENCES, AND CRITICAL RATIOS BETWEEN THE MEANS OF THE TOTAL SCORES ON THE STANFORD ACHIEVEMENT TEST BATTERIES MADE BY THE PUPILS EXCUSED AND NOT EXCUSED TO PICK COTTON

Grades	Group	Number of pupils	Mean	Difference	Standard error of the difference	Critical ratio	Probability
3-4	Excused	26	36.31				
	Non-excused	15	42.60	6.29	.20	31.45	Significant
5-6	Excused	20	48.30				
	Non-excused	10	61.30	13.00	.25	52.00	Significant
7-8	Excused	4	69.50				
	Non-excused	9	78.11	8.51	.95	8.96	Significant

reduce absences to a minimum. Although evidence has been presented to show that excused pupils generally come from homes of power socio-economic status, it may be possible to reduce the duration of absences by having only a part of a family's children out of school at a time. The result to be attained by presenting the evidence considered in this study to the parents in lay terms is unknown, but the necessity to inform them is read-

ily apparent. This is further evidence that all school activities in which parents participate must be utilized to their utmost educational value so that the parents in the community may realize more fully the value of formal school training for their children.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

From the data which have been presented in the foregoing chapters the following salient conclusions are drawn and recommendations made in an attempt to further educational progress in the community.

I. CONCLUSIONS

1. Data concerning the following factors which affect pupil learning in the Malaga Elementary School were found to be low in terms of general standards or in comparison with the norms for certain standardized tests:

(a) the formal educational levels attained by the parents

(b) the socio-economic conditions of the pupils' homes

(c) attendance of pupils' parents at school activities except those in which pupils participate

(d) corrective treatment and medical care received by the pupils

(e) intelligence of the pupils as measured by the Otis Test of Mental Ability

(f) personality adjustment of the pupils as measured by the California Test of Personality

(g) achievement of the pupils as measured by the Stanford Achievement Test

(h) reading achievement of the pupils as measured by the Stanford Reading Test

It should be emphasized again, however, that the factors found to be low may in some instances represent a language handicap rather than a true measure of what the test instruments purport to measure.

2. In a majority of cases the parents of the pupils preferred skilled and common labor vocations for the children. In light of the pupils' apparent opportunities for advanced training, the preferences represented realism. This is due, perhaps, to economic necessity.

3. The pupils, although slightly below the norms on the tests used, attained their best achievement in the areas of health knowledge and civic attitudes.

4. Evidence indicates that pupil retardation is closely related to regularity of school attendance. Pupils excused for approximately ten weeks each school year to pick cotton made considerably lower scores on tests of mental ability, civic attitudes, health knowledge, reading achievement, and subject matter achievement than pupils who were not excused. Evidence also indicated that the excused pupils were actually from homes of lower socio-economic status than were the non-excused pupils.

II. RECOMMENDATIONS

In reference to the data considered in this study, the following recommendations are pertinent:

1. Due to the low educational status of the parents, the leaders in the school and the community should survey, plan, and execute an adult education program. As a phase of this program, the values and possibilities of a Parent-Teacher Association should be considered.
2. The staff of the school should give further study to the reading aptitudes of the pupils and plan a long-range program to improve their reading ability.
3. Careful study should be made of the entire elementary curriculum in order to determine needed revision in light of the pupils' present inadequacies.
4. A plan should be made by school authorities and community leaders whereby pupils excused to pick cotton can attend school at least intermittently during the excused period rather than remain absent for the entire ten-weeks period each year.
5. In the event that the patrons in the lower-income group cannot be brought to an appreciation of the values of consistent school attendance or that a staggered plan of attendance during the cotton-picking season will not satisfy the economic problems involved,

then the district might well consider the advisability of a complete recess of school activities during this period, despite the attendant problems such a plan would create.

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APPENDIX

EXHIBIT A

CHECK LIST FOR VOCATIONAL PREFERENCE

1. For the following 50 occupations, place a checkmark (✓) after each occupation you would like for John to work at when he is grownup.

1. Farmer _____
2. Teacher _____
3. Cowboy _____
4. Priest (boys only) _____
5. Nun (girls only) _____
6. Doctor _____
7. Aviator _____
8. Business man _____
9. Rancher _____
10. Store Clerk _____
11. Salesman _____
12. Housewife (girls only) _____
13. Waiter _____
14. Stenographer _____
15. Secretary _____
16. Gas Station worker _____
17. Musician _____
18. Lawyer _____
19. Banker _____
20. Truck driver _____
21. Railroad engineer _____
22. Tavern keeper _____
23. Railroad Section Hand _____
24. Cotton picker _____
25. Welder _____
26. Civil Engineer _____
27. Electrical Engineer _____
28. Postal Clerk _____
29. Policeman _____
30. Politician _____
31. Judge _____
32. Carpenter _____
33. Bricklayer _____
34. Plumber _____
35. Miner _____
36. Oil Field Worker _____
37. Dentist _____
38. House painter _____
39. Artist _____
40. Sculptor _____
41. Athletic coach _____
42. College professor _____
43. Butcher _____
44. Baker _____
45. Factory worker _____
46. Mechanic _____
47. Preacher _____
48. Forest Ranger _____
49. National Park Ranger _____
50. Missionary _____

EXHIBIT B

TEACHER OPINIONNAIRE ON PARTICIPATION
OF PARENTS IN SCHOOL ACTIVITIES, 1948

1. Parents who came to school on day of registration of children September 1947 _____%
2. Parents who came to school carnival October 1947 _____%
3. Parents who inspected the school cafeteria on night of carnival October 1947 _____%
4. Parents who attended soft ball games in fall of 1947 ___%
5. Parents who attended Christmas program in December 1947_____%
6. Parents who attended assemblies during the year 1947-48 _____%
7. Parents who visited your classroom for any reason during the year of 1947-48 _____%
8. Parents who attended basketball games during the 1947-48 season _____%
9. Parents who attended "Open House" year of 1947-48 _____%
10. Parents who attended graduation exercises in May 1948___%
11. What percentage of parents could we reach through a P. T. A. organization? _____%

EXHIBIT C

PUPIL QUESTIONNAIRE ON HEALTH SERVICE

Name _____ Age _____ Grade _____ Date _____

The answers to the following questions will be used in writing a report on a survey in the Malaga School. Please answer all of the questions as correctly as you can remember the facts. Write the number of times on the blank line. If your answer is none write 0 on the blank line.

1. How many times have you ever been to a doctor? _____
2. How many times have you ever been to a dentist? _____
3. How many times have you ever been in a hospital when you were sick? _____

Answer the following questions yes or no.

1. Have you had your tonsils removed? _____
2. Have you had your adenoids removed? _____
3. Have you had any teeth pulled by a dentist? _____
4. Have you ever had a surgical operation? _____
5. Do you now wear glasses? _____
6. Do you really go to see a doctor for a check-up at least once a year? _____
7. Do you really go to a dentist for a check-up at least twice a year? _____
8. Have you ever had a chest X-ray? _____

EXHIBIT D

OPINIONNAIRE ON PUPIL-COUNSELING

Name _____ Age _____ Grade _____ Date _____

Will you please write a check mark ( ) after the one group of words which you feel best describes the effect of talking with your teacher about your achievement test scores had in helping you to do better in your school work.

Check only one.

1. Helped very much _____
2. Helped much _____
3. Helped some _____
4. Helped very little _____
5. Did not help any _____

Sims Score Card
Form C

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SIMS SCORE CARD FOR SOCIO-ECONOMIC STATUS
Form C

Score.....

1. Name.....
2. Age.....Years and.....Months
3. Grade..... Date.....
4. Have you spent two years in any grade?.....If so, what grades?.....
5. Have you skipped any grades?.....If so, what grades?.....
6. Home address: City..... State.....
7. How many years have you lived in this town?.....
8. Have you attended schools in any other towns?.....If so, name them.....
9. Name of your School.....

Don't answer any of the questions below until you are told what to do.

If you have brothers or sisters in this school, write their names and grades on these lines:

Name..... Grade.....

Name..... Grade.....

In the Following Questions Underline the Correct Answer:

Are you a Boy? a Girl? (Underline correct answer)

Are you living at home with your parents?.....Yes No

Are you living in the home of someone else, such as a relative, adopted parent, guardian, etc.?.....Yes No

Are you living in an institution, such as an orphan asylum or a home for children?.....Yes No

EXHIBIT E

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1. Have you a telephone in your home?.....Yes No
2. Is your home heated by a furnace in the basement?.....Yes No
3. Do you have a bathroom that is used by your family alone?.....Yes No
4. Do you have a bank account in your own name?.....Yes No
5. Did your father go to college?.....Yes No
6. Did your mother go to college?.....Yes No
7. Did your father go to high school?.....Yes No
8. Did your mother go to high school?.....Yes No
9. Does your mother (or the lady of the home in which you live) regularly attend any lecture courses of which you know?.....Yes No
10. Do you have your own room in which to study?.....Yes No
11. Do you take private lessons in music?.....Yes No
12. Do you take private lessons in dancing?.....Yes No
13. Does your mother belong to any clubs or organizations of which you know?.....Yes No
    If you know of any, write the name of one of them on this line (.....)
14. Do you belong to any organizations or clubs where you have to pay dues?.....Yes No
    If you do, write the names of the organizations that you belong to on these lines (.....
    .....
    .....)
15. Does your family attend concerts?
    Never **Occasionally** **Frequently**
16. Where do you regularly spend your summers?
    At Home **Away from Home**
17. How often do you have dental work done? (Underline only one)
    Never **When Needed** **Once a Year** **Oftener**

or a maid, do you have in your home?
None **One Part Time** **One or More All the Time**

19. Does your family own an auto which is not a truck?
    None **One** **Two or More**
    If your family does own an auto, write the make of the auto on this line (.....)

20. How many magazines are regularly taken in your home?
    None **One** **Two** **Three or More**
    If any are taken, write the names of three of them—or as many as are taken—on these lines (.....
    .....)

21. About how many books are in your home? (Be very careful with this one. A row of books three feet long would not have more than twenty-five books in it.)
    None **1 to 25** **26 to 125** **126 to 500** **More**

22. How many rooms does your family occupy?
    2 3 4 5 6 7 8 9 10 11 12 More
    How many persons occupy these rooms?
    2 3 4 5 6 7 8 9 10 11 12 More

23. Write your father's occupation on this line (.....)
    Does he own **Part** **All** **None** of his business? (Underline)
    Does he have any title, such as president, manager, foreman, boss, etc.?.....Yes No
    If he does have such a title, write it on this line (.....)
    How many persons work for him? (Underline the right number)
    None **1 to 5** **5 to 10** **More than 10**

Total Credits..... ÷ No. Answered..... = Score.....

Date Due			
AUG 9 1954			
MAR 9	1959		
MAR	RECD		
JAN 4	1966		
DEC 2 RECD			

IMPORTANT!

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