

STRATHMORE PARCHMENT

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A CASE STUDY OF A SMALL SCHOOL CURRICULUM ENRICHMENT
PROGRAM

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PROGRAM

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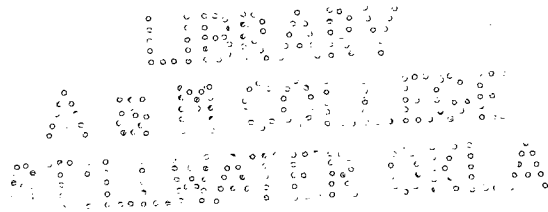
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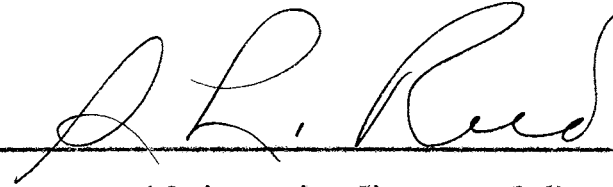
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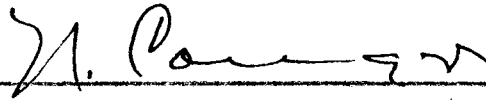


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INTRODUCTION

In an endeavor to overcome the disadvantages inherent in a school with a small number of pupils and a limited staff, and in an effort to keep the organization responsive to the changing demands in education, many school systems have found it necessary to break away from traditional practices. Various devices have been applied in different schools, each one of which, no doubt, has been more or less practicable in its local situation. One such attempt to provide better for individual differences is presented in this case study.

The distinctive characteristic of the plan of organization of this study is the classification of pupils by subjects, in such a fashion that any child is free to change from grade to grade or from room to room according to his placement. This is made possible by having the same subject taught in all nine grades at the same hour. English for example is taught in each of the grades one to nine from 9:20 to 10:30 o'clock. At the end of this period such pupils that need to shift to another room or group for the next class readily do so. At the end of the semester pupils are promoted by subjects.

This case study of a small school curriculum adjustment program is presented as a small part of a larger experimental movement in curriculum enrichment. The community, that is the subject of this study, is not a typical small town community. No effort has been made to present a program that may be recommended for all small schools.

This study is presented to illustrate the possibility of adjusting the curriculum to the local demands while meeting

progressively the needs of a small society. Since music, art, practical arts, domestic arts, and dramatics have received equal emphasis along with social studies, health, English, and arithmetic, no satisfactory state-wide testing program has been applicable to determine complete and accurate outcomes of teaching. The school day has been lengthened to provide for varying abilities of pupils without the enlargement of the teaching staff.

The program as outlined in this study, no doubt, has many features that can be improved, particularly as continued progress is made in the preparation of tests for the diagnosis of pupil needs and abilities, and for the diagnosis of a larger scope of instructional materials.

THE COMMUNITY
Chapter I

Goodwell is a small college town in the Oklahoma Panhandle, in Texas County. It was named by officials of the Rock Island Railway Company after an excellent well for railway service had been completed. This village is located in the great treeless plains region generally referred to as the 'great plains region' and more recently the dust bowl. The elevation of Goodwell is 3,372 feet above sea level. The annual rainfall with which it is accredited by the Department of Agriculture is 18 inches. The average rainfall for 1932 to 1937 is less than 10 inches.

Texas County is located in the long strip of Richfield sandy loam soil, which extends far into Texas to the south and into Kansas northward. This soil is recognized by the United States Geological Survey and the Department of Agriculture as a very fertile and productive soil, with capabilities of producing high yields of a large variety of crops. This soil is easily tilled. During the past seven years, lack of rainfall has forced farmers to plow wheat land while it was very dry. The only plow that can be used when soil is in this condition is the one-way disc, which pulverizes it very thoroughly. This pulverized condition of the soil is responsible for the dust carried by the strong, sweeping winds of this treeless plains area.

The weather conditions in the Oklahoma Panhandle differ widely from other parts of the state. These conditions present different heating, lighting, ventilating, and transportation problems. Buildings that were constructed before 'deserts

started their marching' were not designed to cope with the situation. Pupil health and comfort challenge the ingenuity of the administrator and teacher from every angle. Classroom procedure must be more carefully planned to meet unavoidable physical conditions of the classroom that are undesirable.

During the dusty season, which extends from March to June, at least fifty percent of the days are disagreeably dusty. Two types of dust storms bring about this condition. The one most common is the type that starts in the late forenoon, sometime between nine o'clock and eleven o'clock. It is usually forecast by a beautiful, stimulating, and slightly damp morning with a very clear sky rimmed by a gray haze. The wind velocity gradually increases, thereby decreasing visibility. This type is more disagreeable because of its duration. It reaches its peak of violence between one o'clock and four o'clock, and usually permits a gray evening and a red disc sunset to offer necessary relaxation to tense nerves. During this brief interval between two dark periods, everyone comes outside; men assemble softball equipment and play an exciting game, which many have found to be a splendid tonic for optimism; others get tennis rackets or just stroll or visit.

The other type of dust storm is known as the black blizzard. It is probably the most awe inspiring of the weather phenomena. Black blizzards are always preceded by a calm, beautiful day, usually during a low pressure movement of air over the great plains area. They usually appear after four o'clock and roll over this territory, darkening it equal to the darkest night. This type is the dangerous one to school

transportation or school activity trips and picnics.

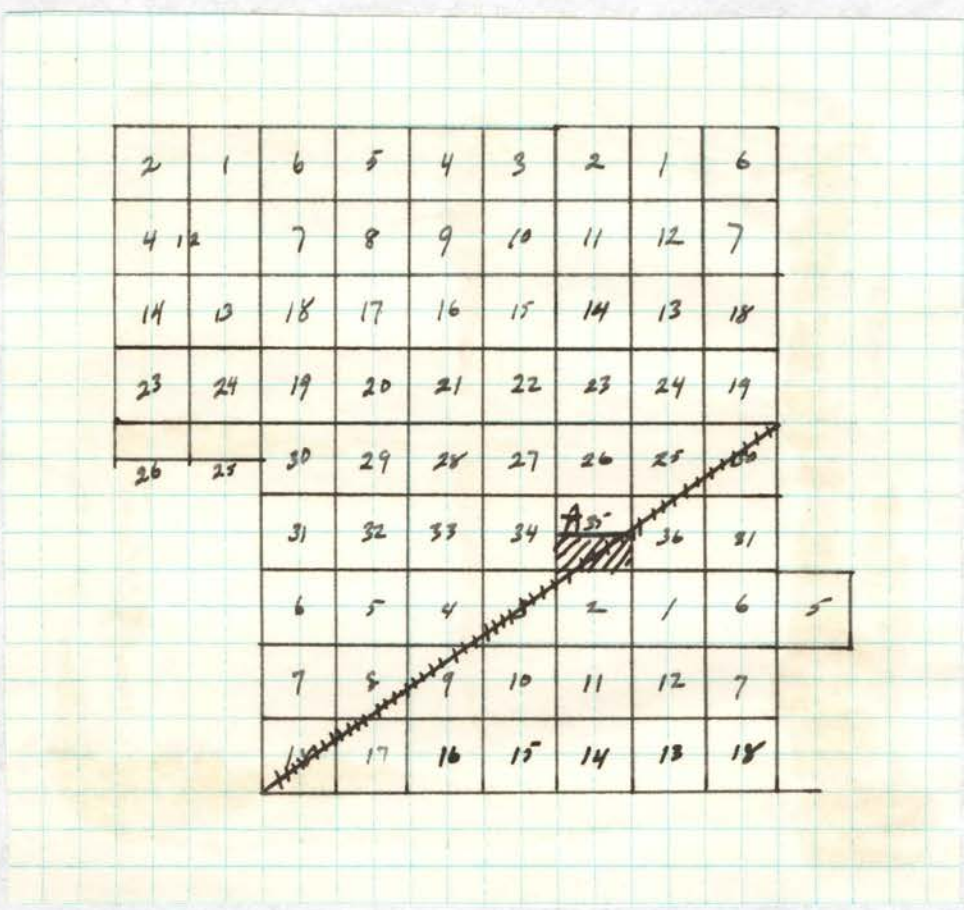
Soon after children arrive at school, invariably they get the barometer readings from their rooms with a great deal of anxiety. School children in the Panhandle watch weather reports, barometer, thermometer, hydrometer, and anemometer readings with interest and anxiety equal to that of the children of the Maine coast fishermen.

The people of Goodwell are typically western of the American pioneer stock. Their interests are agricultural and educational, especially educational since Panhandle Agricultural and Mechanical College is located here.

The consolidated district, a diagram of which is presented on the following page, is 73 square miles of good farms. This employs four school buses each with a route of 14 miles in length. This district is crossed almost diagonally from southwest to northeast by the Rock Island Railway, Comarron Utilities Gas Line, and the Oklahoma Gas and Electric Power Line. The evaluation is \$826,000.

DIAGRAM OF DISTRICT

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FACTORS CONSIDERED IN CURRICULUM CONSTRUCTION AT GOODWELL
Chapter II

First consideration was given to pupil needs and interests in curriculum development. The pupils come from farm homes, small town citizenry homes, and college faculty homes. It was necessary to plan a program of curriculum development for immediate needs which included health and local vocational possibilities. Job analysis was not employed completely as outlined by Bobbitt.¹ The first major objective was to enrich the elementary curriculum in order to provide for individual differences in these grades.

The financial condition of the district permitted the addition of a practical arts shop for fifth, sixth, seventh, and eighth grade boys; and a domestic arts laboratory for fifth, sixth, seventh, and eighth grade girls. The community was also able to build a fine gymnasium for a physical education program. After a public relations program had stimulated a great deal of interest in the school; elementary vocal and instrumental music and art were added.

The building and equipment available at the outset of this program were insufficient. The faculty and pupils were content to administer this program until additional space and equipment could be provided.

Existing advantages at Goodwell must be recognized. These are not existing in most small communities. Practice teachers that use the public school for a laboratory are very co-operative and are always available. These teachers work

¹Document

with the regularly employed district teachers. The college farm offers excellent laboratory facilities for biology and agriculture groups. College visual aid equipment, movie projector, and stereoptican are available for use. College laboratories and museum have offered splendid co-operative services. The infirmary is a part of the community health program. After diagnosis of pupil health in the school, the remedial offerings of this splendid institution vitalize health appreciation.

College assembly programs are offered to public school pupils weekly with reserved balcony sections. These programs are not only entertaining but educational with appreciation lessons in music, art, and dramatics.

Fine arts relationships of college and public school groups are very stimulating to the development of the aesthetic arts. Both groups work co-operatively when possible. Many advanced high school pupils in these arts are invited to participate with the college groups. Church choirs sponsored by the college and public school vocal music departments offer admittance to both college and public school groups. Likewise, Sunday school orchestras are organizations composed of both groups and rehearse during the school day program. Practice teachers in these fields offer services to beginners' groups and juvenile groups under the supervision of the district-employed teachers. These relationships have been instrumental in developing a high rate of pupil participation in vocal and instrumental music and dramatics at Goodwell.

PUBLIC RELATIONS
Chapter III

One of the chief requisites of a good school is for the school, the home, and the community to work together for the education of the child. This co-operation can best be effected by each of these groups knowing the needs, aims, desires, methods, and accomplishments of the other. Whether in industry or in public affairs, these persons who understand the trials and the tribulations of management--who are kept informed concerning its aims, needs, processes, and accomplishments--are most likely to be sympathetic with the administrative personnel and most likely to support it through both foul and fair weather.²

The task and opportunity, therefore, of the administrative personnel and faculty groups of Goodwell were to keep the public thoroughly and constantly informed concerning the aims, the needs, and the accomplishments of the school in progress of curriculum development.

When such acquaintance was not offered, a large percentage of the public did not know that its school was any better than the one it had the term before; therefore, many could not see the necessity of additional teachers, addition of new building space, and purchase of new equipment. This was especially true when the addition of a physical education program, that is so much more comprehensive of pupil participation, was introduced. Laymen too often regard the worth-while activities of art, music, and dramatics as "foolishness". It was found that too many tax payers believed that the school should be confined within the walls of the school plant. Many honest citizens failed to realize that the home, the church, and community life in general, and commercial

²Reeder, The Fundamentals of Public School Administration.

recreation agencies all contribute directly to the individual's education. Education was still measured by puzzling questions that supposedly demanded answers from minds that had been trained to think by difficult mental disciplining.

The type of publicity program to bring the aims of this curriculum enrichment program to the public is a continuous one. The day by day public relations program, which presented service efficiently rendered, was the basis of publicity used at Goodwell. Such a type operates most efficiently through well planned and executed exhibits of work, band concerts, not only periodically presented but appearances at many public gatherings and goodwill tours. Free athletic contests and free intramural athletic demonstrations were presented. School trained pupil participation in church orchestras and chorus and home participation as a school project all were effective agents of public relations.

Advertising and newspaper publicity are not included in the publicity program. These means probably could be employed with advantage were it not possible to do this in excess and thereby attract suspicion. Fear of misinterpretation by the editors also has a tendency to cause the administrator to avoid this method.

It is the experience of the faculty at Goodwell that the public is willing to pay for its interpretation of the value received. It is definitely important to this faculty group to bring the parents into the school or take the school to them. Every high school play, commencement program, or community sponsored program is accompanied by either an art ex-

hibit, practical arts exhibit, home making exhibit, or entertaining musical or dramatic performance conveniently placed for the enjoyment of the parents and others.

This philosophy of public relations guides the program of interpreting the school to the people. It is very functional educationally. Performances and exhibits are stimulating to preparation. Members of the staff receive credit for work where credit is due. This, we believe, justifies the use of a continuous, day-by-day program of public relations.

THE ELEMENTARY SCHOOL CURRICULUM
Chapter IV

In the past the teaching profession has taken a rather narrow view of educational activity and has envisioned it as concentrated in the public school plant. The educational requirements of small communities are changing so rapidly today that the usual school plant is no longer adequate. True enough we have shops and laboratories with sufficient space, and these are serving even more efficiently than ever before. We realize that the narrowness of experiences in school and classrooms has developed an artificially educated individual who found difficult adjustments to be made after completion of this course in the school laboratory alone.

The field of public educational activity within a community is complicated just as life itself has become complicated. The life problems of the people in a locality become the problems of the school.

Education is the means by which each generation is adjusted to the environmental conditions under which we must live.³

Since the purpose of education is to prepare the child for effective social living, all of the major economic and social changes that have affected the Panhandle area have resulted in corresponding changes in the schools. The future will see many changes and developments in the curriculum of small schools of the high plains area. Economic and weather conditions have conditioned a distinctive type of American people with a distinctive social pattern not to be found in

³ Arthur B. Moehlman, Editor of Nation's Schools.

other areas. These people with problems of health, leisure time, and vocations are ready for supervision that is functional. They are experiment conscious.

The program of curriculum enrichment began in September, 1931, at Goodwell. The consolidated district of 73 square miles with an evaluation of \$1,100,000.00 (1932) was offering an elementary program that included the first eight grades and two years of high school work. The remaining high school work was usually completed in the Panhandle Agricultural and Mechanical College secondary department.

The people of the district were demanding additional work in the secondary school when a change in administration was made. This condition offered splendid opportunity to add teachers and special supervisors, and, incidentally, a greater variety of courses to be administered by any new plan that would be adopted by the faculty and community.

The board of education delegated full responsibility of the new organization to the new superintendent, who had done some observation in the Winnetka School System at Winnetka in North Chicago. The author, who was the newly appointed superintendent admits that although the curriculum originally was planned with the Winnetka Plan in mind it is far today from operating on the Winnetka Plan. Various modifications and adaptations from the original plan were developed to fit local needs and a local social pattern.

The individualized instruction plan could not be used to the extent it is used at Winnetka. The program at Goodwell does not restrict time or subject matter. The elementary program of studies will first be presented in this thesis.

This was first developed; and it alone was patterned originally after the Winnetka plan, since the Winnetka program is an elementary program only.

The elementary school pupils at Goodwell expressed most interest in music, art, shop, folk dancing, domestic arts, and dramatics in a survey of what should be offered in the elementary curriculum. All of these could not be offered the first year. The teaching personnel was not qualified. These were all added by the end of the third year, and this program of studies is the result.

TABLE I

ELEMENTARY SCHOOL DAILY SCHEDULE OF PROGRAM OF STUDIES

8:15 A.M.	9:00	9:20	10:30	11:10
Industrial Arts	Health	English	Physical Education	Arithmetic
Home Economics				
1:00 P.M.	2:30	3:00	3:30	
Social Science	Art	Music	Dramatics	

This time and subject schedule is uniform throughout the elementary grades including seventh, eight, and ninth grades. The junior high school program is not offered. This program, it is believed, offers as comprehensive a program of exploratory subjects as the school can afford.

Kindergarten work is not offered. Four rooms serve the elementary grades. These room assignments are as follows: one room for primary and second grades, one room for the

third and fourth grades, one room for fifth and sixth grades; and one room is assigned to the seventh and eighth grades.

The time and order of the program of studies are uniform to provide for individual differences. Fifth grade pupils, for instance, that are capable, may take sixth grade arithmetic without conflict with other fifth grade subjects in which they find themselves. These same pupils may be doing fourth grade spelling also without conflict. This is especially effective from the eighth to ninth grade interval. In this case pupils complete a unit or more in high school before their complete promotion from the eighth grade. This may be true of the accelerated or gifted child while the retarded child may be doing eighth grade arithmetic during his freshman year. The fundamental objective of this plan is to promote progress.

Individual differences may also be provided for without acceleration. Gifted pupils may enrich their day's experiences in music, art, dramatics, shop, domestic art, folk dancing, and nature study by remaining with the classified group and doing additional work in the aforementioned subjects. All pupils participate in the complete schedule.

Pupils are classified by intelligence tests, cumulative records, achievement tests, and teacher judgment. No opportunity rooms are provided for handicapped children. Since these youngsters must learn to live with people who are free from physical and mental defects, they must learn in school to adjust themselves to the average social group, instead of growing as social misfits because of segregation. There are

many social activities in which the entire group participates.

School at Goodwell begins at 8:15 o'clock. The most attractive electives are offered at 8:15 o'clock; for instance, shop, for fifth, sixth, seventh, and eighth grade boys; and domestic arts for fifth, sixth, seventh, eighth grade girls; folk dancing and beginners' band for both. The buses arrive at 8:10 o'clock. Many pupils are at work in their laboratories and fine arts room at 8:00 o'clock. These subjects were offered as purely elective at first; no one was compelled to be at school at 8:15 o'clock. Parents, however, wanted their children to have these experiences; and in order to solve their problem, they petitioned the bus drivers to arrive on the school grounds at 8:10 o'clock.

Shop work and manual training which are offered at 8:15 o'clock at Goodwell are very popular activities with elementary boys. This program is under the direction of the practical arts teacher with a high school shop pupil assisting. The entire program is centered around individual projects. Projects vary, of course. Some pupils repair home equipment or build new projects for presents to parents or others. Some make bows and arrows which are boy scout needs. Many bird houses are built each term. The pupils in this department won \$30.00 in prizes in the prairie schooner model contest sponsored by the Guymon Chamber of Commerce on Pioneer's Day, May 2, 1937.

This shop work correlates advantageously with project work in social science and other work in the daily program

of studies. Models of bridges, Mount Vernon, electric motors, stages, and various other models are built by members of this group. Third and fourth grade boys are not regularly enrolled, but many use this shop and this hour to give expression to their needs.

Materials are conveniently placed. These are usually new boxes of soft lumber and scrap lumber from the high school shop. Upper grade level boys whose projects demand special lumber pay for lumber from the shop supply. Most lumber and materials are brought from the home. Only hand tools are used.

This course is not compulsory. If a boy is absent the shop supervisor makes a special effort, however, to interest him in a project that is suggested by the boy. Tools, convenient bench room, and special help with the project soon help the boy to find himself and his place in this worthwhile activity. The shop teacher has splendid opportunities for effective guidance.

Elementary domestic arts and folk dancing for girls of the fifth, sixth, seventh, and eighth grades are the first activities of the program of studies for the girls. This period also begins at 8:15 o'clock A. M. This program is administered in the home economics laboratories by the home economics teacher with a high school home economics pupil assisting.

This program is divided into units of related activities, candy making, etiquette, table service, diet, dress, folk dancing, and others. Pupils and teachers organize the

program and plan the units. Many projects here also are correlated with other activities of the daily program of studies. Costumes of children of China and a demonstration of rice eaten with chop stick for demonstration in social science are examples of projects prepared during this hour. Foods demonstrations prepared during this period are often presented during the health period at 9:00 o'clock A. M.

The application of this activity to improve home membership is probably the greatest value of the home economics unit. Girls outline daily habits of social conduct, study diet and health habits, and outline their program of home etiquette. The home economics director is also girls' counselor.

This is not compulsory activity. If a girl in the desired grade range does not choose to participate every effort is made to interest her. Sometimes it is necessary to stimulate her interest by group co-operation composed of her friends and closest playmates. Sometimes it is necessary to approach her through a home project, such as helping her and two or three of her friends plan a party at her house. If a mother objects the only avenue of approach is through her daughter. Pupils furnish their own materials in sewing and designing. Costs of simple cooking are paid by the district.

Another advantage of this program to Goodwill in addition to enriched pupil experiences in both departments is the increased efficiency of the school plant. During this hour of the day these two valuable laboratories would not be

otherwise utilized.

At 9:00 o'clock A. M. the elementary school pupils participate in their daily health program. Twenty minutes are devoted to health guidance and personal health practices. Pupils at this time adjust their physical surrounding in order to improve their daily program of work. All the children have combs, finger nail files, and clean handkerchiefs and with these instruments correct any physical appearances that may be necessary.

Clothing, seat arrangement, light, ventilation, and temperature are all examined in an effort to offer comfortable working conditions. All these are pupil activities. The teacher examines pupils in order to prevent possible spread of contagious disease. Weekly weight records are kept by the teacher and pupils.

Physiology is taught twice every week at which time the period is lengthened. Special teachers are often invited to take charge of these periods. These teachers are often college students doing special work in physiology, the high school biology teacher and occasionally a high school pupil who has prepared a unit.

Health clubs grant special privileges to their members in order to correlate health at home with health practice at school. Extra curricular credit and points are given to members of health clubs.

Health examinations and clinics cannot as yet be offered as frequently as should be. This program is planned and may easily be conducted. The college infirmary and nurse in co-

operation with the public school health supervisor will have a program for these services ready to present during the school year of 1937-1938.

ENGLISH

English at Goodwell includes spelling, writing, reading, composition, and language. These activities are readily correlated and seventy-five minutes are devoted to these related subjects. This period is not blocked off into fixed divisions for each subject, but is a flexible one that some days may be used entirely for reading or for language as the needs may be. Teachers plan, however, so as not to sacrifice a particular activity for any other.

The preparation of a list of words, which every child should learn to spell, and the development of a technique of teaching these words, which will require the minimum time and effort for the maximum results, are necessary in planning and administering the spelling curriculum.

The spelling lists so far published have been based chiefly on studies of correspondence. This is a reasonable and justifiable basis since the writing of most people is based on correspondence. But this basis can profitably be broadened to include those words which children themselves use in their written compositions in social science or work sheets from day to day. For example, children studying the Panama Canal should be given time during the spelling period to study the social science word list for their unit of work for that day. This emphasis placed on immediate needs integrates the pupil's learning and interest.

The composite list secured from words that are of immediate need to the child and those based chiefly on studies of correspondence can be carefully checked and completed by comparison with Thorndike's word list. This word list organized by teachers that will use it, stimulates the teaching of spelling and develops the proper perspective in the one that will administer the program.

If word lists thus organized are inadequate, good activity textbooks are obtained and used. These do not fit the correlation program but are well organized with pupil needs in mind.

Writing at Goodwell is offered in both the manuscript and the cursive. Both are taught by special teachers. Both are recognized as having special advantages without emphasis being placed either on one or the other. Considerable study and experimentation has been devoted to this phase of English. The author is content to say that the use of both is merely a provision for individual differences.

Cursive writing is probably used more than manuscript and may always be. Pupils who naturally write well should be guided during their disposition of duties and work in writing in improvement in letter formation. It is very doubtful that conditioning of the musculature in writing is worth the time spent. This is still practiced somewhat by the penmanship supervisor at Goodwell, however. The reason for this practice is the absence of a substitute that is better.

Cursive writing is taught as departmentized work by one teacher. The writing period is not spent in drill with rhythm,

however. Emphasis is placed on letter formation and legibility rather than on uniformity. The philosophy that guides this practice advocates individuality in writing. Pupils develop this individuality; and when it is recognized by them, the effect is most gratifying.

Manuscript writing is principally offered in the primary work. Pupils correlate their reading and writing and have only capital letter and small letter recognition to master. Manuscript writing is used by those students in the higher grades who have difficulty in cursive writing. Several cases in high school have been directed to the use of manuscript writing after they had spent at least eight years of practice and usage of cursive writing. These cases were boys who had difficulty in theme writing or creative writing because of poor penmanship. The use of manuscript developed a new appreciation of creative writing, because of neater work; and a better quality of writing, because the mechanics are so much more easily mastered by some individuals.

Manuscript writing has made its way into the primary grades so positively and with such a weight of scientific evidence in its favor that a discussion of its merits at that level is no longer necessary. Until recently, however, evidence has been very meager on the question of whether children should change from manuscript to cursive writing and if so, at what time and by what means. Will children trained in manuscript writing from the beginning write more slowly as they reach the higher grades.⁴

Carleton Washburne, Superintendent of Schools at Winnetka Public Schools, Winnetka, Illinois, has made a very interesting investigation of the problem presented.

⁴ Carlton Washburne and Mabel Vogel Morphett, Manuscript Writing, Some Recent Investigations, March, 1937.

Manuscript writing has been taught in the Winnetka Public Schools since 1924. At that time the children entering the first grade were taught manuscript. Each year as these children moved up a grade manuscript writing moved up with them until it was the only type of writing used in the Winnetka Schools. The children who were in that first class have now graduated from high school and all children who have followed have been trained in manuscript writing and have continued to use this form throughout later school life.

This gives Mr. Washburne excellent material with which to work, since pupils who complete work at Winnetka Elementary School attend New Trier Township High School together with children from three neighboring communities. Many of the high school pupils from Winnetka continue to use manuscript throughout their high school work along with others who have used only the cursive. The following table shows the results of Washburne's investigations.

TABLE II

COMPARISON OF RATES OF WRITING OF HIGH SCHOOL PUPILS WHO HABITUALLY USE MANUSCRIPT OR CURSIVE WRITING.⁵

	Manuscript Writers	Cursive Writers
Number of Children-----	78	214
Number of letters written per minute-----		
Lower Quartile-----	104	99
Median-----	116	113
Upper Quartile-----	131	126

⁵ Ibid.

Writing and composition or creative writing are used together in the English curriculum, and one is always used while emphasizing the other. This art is one of the finest and most comprehensive of the expression subjects. Complete freedom of choice, time, and length of the composition are the fundamental requirements of the teacher. Reading is correlated with this art, and often the two activities are taught together to the same class.

Language usage is built around one main objective, that is vocabulary building with correct usage. Just as writing has individuality so the vocabulary of the person has individuality. Pupils must learn to select significant words that express ideas. These, then, must be acquired in order to express precisely those ideas. Here again the curriculum is not confined to only the school plant. Pupil participation in community and church activities offer splendid laboratory facilities for language usage both written and oral. Preparation in the school classroom is encouraged and individual guidance willingly given. Story telling hours sponsored by college groups and social groups offer excellent participation for primary groups.

PHYSICAL EDUCATION

Physical education begins at 10:00 o'clock A. M. for the first to the fourth grades inclusive. At 10:30 o'clock A. M. these pupils resume their room activities while the fifth to the eighth grades inclusive have physical education. This period is spent on the playground when it is possible. Weather conditions prevent the use of the playground more than

one half of the periods during the school year. The division of the physical education period permits efficient and sufficient use of the gymnasium during the dusty period.

The gymnasium is forty-four feet by eighty-seven feet in court area. The floor is covered with asphalt tile to permit play activities without restriction of type of shoes. During unfavorable weather conditions mass games and team games make up the physical education period. All pupils are expected to be present. However, selection of games and activities is made by pupil groups. Two teachers are usually present during the physical education period to help the supervisor.

Games that will influence worthy use of leisure time and will contribute to the health of the pupil are encouraged mostly. Tennis, volley ball, badminton, all are interestingly presented and equipment conveniently placed in order to enhance the possibility of becoming first choice by the pupil groups. Our records of game participation show baseball, basketball, and football still the most popular games played by all pupils above the third grade.

ARITHMETIC

Functional arithmetic follows the physical education period. Arithmetic is functional only when the numbers and processes are kept within the child's experience. Arithmetic has not offered the out-of-school available laboratories that are so freely offered in the other activities. This does not mean that arithmetic cannot be put into realistic experiences or that it is not being put to a practical use in the com-

munity.

Arithmetic can be made functional and kept within the child's experiences. Pupils are entitled to inquire what use $15/32 \times 17/12$ is to them; or why $1/3 + 1/26$ should be studied. I think the child that challenges these processes is doing some very good thinking. He has potentialities and should be on a committee on arithmetic unit development for his class. One seventh grade pupil challenged the usefulness of interest solutions when his father used tables in his business altogether. Another suggested that he bring life insurance tables to class for his solutions. Elementary pupil experiences do not include square root, area of circle, $.006 \times .024$, $1/6 + -1/9$, $1/6$ $1/8$ $1/12$, and many others. They do include clothing costs, gasoline costs, mileage of the family automobile on trips or in home service, electric, gas, and water costs in the home, food costs, comparative wearing qualities and prices, cost of operation of municipal institutions, schools, boy scouts, local organizations, churches, and others. Savings and an appreciation of wise investments are arithmetic projects that should employ the co-operation of home and school. Every child should be an active member in a savings and investment club.

The social pattern today offers as many uses for arithmetic that is functional as it does for functional language, spelling, and reading. The required course for all children can, logically, consist only of what all children will use.

SOCIAL SCIENCE

Social Science at Goodwell is a composite course of geog-

raphy, history, civics and nature study. This group activity begins at 1:00 o'clock and closes at 2:00 o'clock. This is the group and creative activity around which many of the other activities center. Manual arts, music, composition, domestic arts, and art may all be employed during their regular periods in the program of studies to correlate with and enhance the study of social science.

This course is not confined to one basic reader or text. The course of study is developed around a large collection of books available in the school and home room libraries. These courses of study are revised each summer as new materials, books and visual aids are added. The revision is made by the principal and individual teachers, in each case to fit the available books and materials and the community as a laboratory. Excursions can be planned only when the community is in consideration. Social problems and advantages can only be studied and made use of when they are made available to the class. Social science offers more opportunity for motion picture film uses and slide and stereograph uses than other activities. More charts, maps, and globes of various varieties are available in this course than in other courses. Models and exhibits may represent more phases of the work in social science than in all other courses combined. It is not difficult to understand why pupils like this course as they do. Its possibilities for creative writing, for public speaking, for application of art and costuming, interpretative dancing, intensive reading and research all provide for even the greatest range in individual differences. Every child finds him-

self in social science at Goodwell. The teacher's primary objective in mind while developing the course of study is, to reach every pupil, in order that the class may receive his contribution. This quite often helps the child to sense the significance of other subjects such as vocabulary development and correct language usage, writing, arithmetic, art and the others.

The classroom is a social science laboratory, which in combination includes laboratory facilities for much other work. Aquaria, barometer with its recordings, plants, exhibits, models, and charts fill all bulletin board space which includes all available wall space. Tables beneath bulletin board spaces exhibit the hand work in harmony with the wall exhibit. If other rooms were available, this work could be placed on exhibit during the units in them, perhaps, with advantage. The room environment is not objectionable, however. All pageants are presented in the auditorium for social science and the other activities, which relieves the room of crowded and filled conditions.

Social science is the core of the elementary curriculum at Goodwell. Although only one sixty minute period is devoted to the actual class room meeting and organization of this activity, it is supplemented by the home and other activities in the school. The local community is the laboratory. All members of the class make contributions to the community. Research is all done in the local area. Some problems, for example, are methods of making homes more dust proof. This includes the home room at school. Recent deep well irriga-

tion projects sponsored by the college have been interesting activities for observation and study. Probably more research was done by the pupils on this problem than any other. This was due to the many factors involved in the success of deep well irrigation in the panhandle area, and the direct influence on the lives of the people if the project is successful. I shall cite this unit of work as an example of a social science unit developed and studied by the class.

Two deep wells have been drilled at Goodwell for irrigation purposes. One well was completed on the experimental tracts of the college farm for summer crops this season. The other also drilled on the experimental farm will be ready for use in September.

All the people of the panhandle area are greatly interested this project. It directly influences the lives of all the people whether it is practical or not. This, of course, is especially of interest to the people in the district. All were eager to know costs, types of soils, alkaline content of the well water, gallons per acre, size of pump, kinds of crops, and what had happened in other sections of the United States where irrigation from deep wells had been practiced.

All these problems furnished excellent opportunities for study. Teacher groups met with the principal and a unit was developed for study in all of the grades. Each grade was given a suitable level of study. Soils were studied for water percolation and water holding capacities; experiments accompanied by readings and talks by college agronomy students furnished solutions and aroused interest in other problems.

Many of the pupils developed a sincere appreciation of our soil, its origin and capabilities through this study which they perhaps would not have gotten otherwise.

Crops were next studied with their relation to soil, rainfall, season, and other conditions. Higher grades studied reasons for their dependence on these conditions, such as differences in root, stem, and leaf structures. Several boys during this unit attempted grafting of plants in order to develop a legume that would thrive in the high plains area with the accompanying rainfall.

After our soil and crops were studied, irrigation studies were begun. Government bulletins and source books supplied sufficient reading. Pupils studied the story of Brigham Young and his colony in Utah and their problems with irrigation. Excellent reports were given and visual aids were presented on government reclamation of waste lands in the West, and soil erosion which had been a former unit was reviewed. The construction of the well and the drillers furnished excellent available laboratory facilities. This unit was not assigned a definite time range; it was developed through reading, excursions, visual aids, and speakers. A great deal of experimentation was done. Pupils found the study of areas and volumes quite functional in arithmetic while studying acre inches and acre feet of water, and capacities of pumps.

This unit was of no more interest and adaptability to the community than the one on dust control in homes and care of the respiratory system during the dusty period.

Units of integrated history, geography, and civics are

developed and studied as group activities as well as local problems. These, however, are studied as an integrated whole, and the influence for these and each unit is finished by presentation of a pageant or exhibition of the social and economic lives of the people studied.

AESTHETIC ARTS

The program of studies offers art, music, and dramatics from 2:00 to 4:00 o'clock. All pupils participate in these activities. Teachers who have done special work in these subjects begin a program of departmentalized work. Teachers and pupils alternate in special laboratories under special teachers. These teachers remain in home rooms and conduct classroom work of the regular program of studies from 8:00 to 2:00 o'clock.

Both instrumental and vocal music are offered. Two special teachers do this work. Instrumental music begins with rhythm band work in the primary and first grades. Third and fourth grades have juvenile symphony which is work with the calura and clarette, splendid instruments to develop fingering and note reading. This work follows rhythm studies in rhythm band work. It is excellent preparation for instrumental music. Both of these primary organizations satisfy an immediate need of music and rhythm expression, as well as prepare pupils for later instrumental studies. Fifth, sixth, seventh, and eighth grades have junior band and orchestra work. Junior band meets every day. This organization is not a beginners' group. The band has its own repertoire and performs occasionally and competes in contests as a marching band

as well as a concert band.

Vocal music is offered each day to all grades also. The vocal music teacher either meets with pupils in their home rooms where the phonograph on trucks may easily be moved, or uses either a special room or the auditorium, each of which has a piano. Operettas and cantatas are frequently given as music projects. Juvenile organizations, such as glee clubs, chorus, and smaller groups motivate this program very effectively.

The art curriculum reaches every elementary child just as does the music curriculum. This teacher teaches art in each home room to various groups. Art is not a fixed or lock-step activity. Pupils may choose from a large variety of projects. The program is planned to provide for individual differences and to develop the finest of a child's creative abilities. Leather work, cloth dyeing, painting, stenciling, carving, and other activities provide both boys and girls with interesting work. This program does the school's advertising and poster work, and places numerals and signs on room doors when necessary. Art contributes generously to project work in other courses, thereby meeting an immediate need.

Dramatics are offered in the auditorium. This activity is a combination elementary public speaking and dramatics activity. Choral reading and individual readings are practiced more than other activities. The auditorium is used where stage facilities are available. Pupils write plays, select their characters and costumes, and present performances as class projects. These are sometimes presented in assemblies or are

scheduled for evening programs when parents and friends are invited. Pupils frequently compete with readings and extemporaneous talks as well as one act plays, all of which have received guidance during the dramatics period.

TESTING PROGRAM

The elementary curriculum at Goodwell probably differs a great deal in content, materials, and time from most curricula in Oklahoma. This is not presented as an unique set-up. It is a type, however. It is one that has been organized to fit a specific community, to fit more nearly the needs of these people. Much work is offered that is not included in the state's testing program. For this reason the teachers and superintendent have tested quite periodically for desirable outcomes in the subjects which the state tests. The reader must remember in interpreting the data that are presented that the tests were given periodically to Goodwell pupils in order to be used by teachers for classification purposes and remedial work. Teachers are also eager to maintain proper perspective of the fundamental subjects and their content.

Pupil intelligence quotients were obtained with the Detroit Test and the Army Alpha Test. Educational Quotients were determined with the Stanford Achievement and Public School Achievement Test. Each test has various forms.

Achievement tests are given two times each year. The first test is administered approximately three weeks after the beginning of the first semester. The other is administered at the beginning of the second semester. These batteries of tests offer excellent opportunities for classification and

remedial teaching.

Intelligence tests are administered to all beginners and approximately every two years thereafter. Beginners take the test to determine the mental age. Since this factor is very significant in determining the child's ability to learn to read, these tests are administered by those that are most efficient under the most favorable conditions. Children who have mental ages of six years and six months or above have been progressing most as beginners in reading at Goodwell. Beginners' mental ages are determined by the Pintner-Cunningham and the Detroit Intelligence Tests.

TABLE III

NUMBER OF CHILDREN OF EACH MENTAL AGE AND PERCENTAGE
MAKING SATISFACTORY READING PROGRESS
SCORES BY PINTNER-CUNNINGHAM TEST

Mental Age in Years and Months	Number of Children	Percentage Making Satis- factory Reading Progress
5-0 to 5-5	1	0
5-6 to 5-11	3	33
6-0 to 6-5	6	50
6-6 to 6-11	10	90
7-0 to 7-5	2	100
7-6 to 7-11	1	100

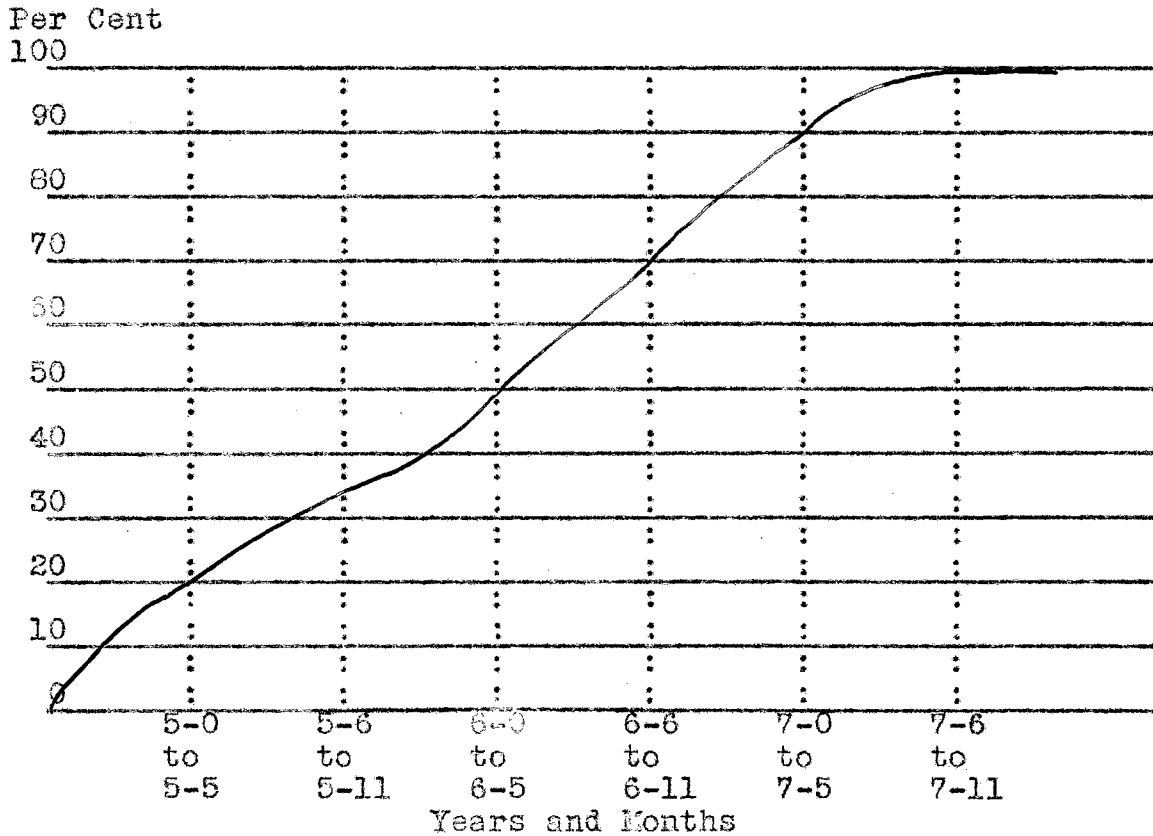
When the Pintner-Cunningham test was used as a basis for determining mental age, the children who had mental ages of six years and six months made more progress than the children with lower mental ages and almost as satisfactory progress as did the children above this mental age.

Other experiments and their graphs administered and recorded with larger groups and various localities and other

TABLE IV

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PERCENTAGES OF MENTAL AGES, AS DETERMINED BY PINTNER-CUNNINGHAM INTELLIGENCE TEST, MAKING SATISFACTORY PROGRESS IN READING



tests show similar results. Consequently, it seems safe to state that by postponing the teaching of reading to children below the age level of six years and approximately six months, the chances of failure will be decreased.

The effectiveness with which children are classified into grades or groups can be tested to a certain extent by finding out how homogeneous or how heterogeneous they are in intelligence and in their achievement in reading, arithmetic, geography, history, and other school subjects. A knowledge of the distribution of the childrens' abilities affects the methods and ends of teaching as well as policies of grouping.

The author has used the standard deviation to measure

variability of all data that are presented. This criterion was used in an attempt to reach better all pupils by grouping. He has used the mean for measuring central tendency.

Comparisons of scores and measures of rank and variability are presented here as a part of the study of classification. It is not the intention of the author to present evidence of greater achievement but to submit the procedures in research in administration of the curriculum.

The scores that determined the intelligence quotients of these pupils were indicated by the Detroit and Army Alpha Intelligence Tests. The scores that determined the educational quotients of these pupils were indicated by the Stanford Achievement Test Form X.

Some chronologically level groups have varied widely throughout the grades. Others have narrowed the range. A wide range indicates differences of level in abilities. These differences have been recognized as a normal condition in this school and provision has been made for normal progress for all. Pupil A and pupil B in the third grade took fourth grade English, which includes spelling, reading, composition, and language usage. Each of these two scored above the fifth grade on the test in reading and spelling. These pupils with intelligence quotients of 114 and 119 respectively were permitted to proceed at their own ability level. This was permitted by the plan of the program of studies presented earlier. Their program was also enriched by the group activity subjects, music, art, social science, and dramatics in their grade level. Thus gifted pupils work both with a flexible schedule and with

TABLE V

Comparison of Third Grade Intelligence and
Educational Quotients

Pupil	I. Q.	E. Q.
A	130	120
B	120	128
C	119	131
D	118	115
E	114	122
F	114	121
G	114	116
H	108	100
I	100	123
J	93	99
K	84	100

Mean I. Q. = 110

Mean E. Q. = 116

TABLE VI

Standard Deviation of the Third Grade
Intelligence Quotients

Pupil	Score	f	d	fd ²
A	130	1	20	400
B	120	1	10	100
C	119	1	9	81
D	118	1	8	64
E	114	1	4	16
F	114	1	4	16
G	114	1	4	16
H	108	1	-2	4
I	100	1	-10	100
J	93	1	-17	289
K	84	1	-26	676
Total N	11			1762

$$\sigma = \sqrt{\frac{\sum fd}{N}}$$

$$\sigma = \sqrt{\frac{1762}{11}}$$

$$\sigma = 12.6$$

TABLE VII

Standard Deviation of the Third Grade
Educational Quotients

Pupil	Score	f	d	fd ²
A	131	1	15	225
B	128	1	12	144
C	123	1	7	49
D	122	1	6	36
E	121	1	5	25
F	120	1	4	16
G	118	1	2	4
H	115	1	-1	1
I	100	1	-16	256
J	100	1	-16	256
K	99	1	-17	289
Total N 11				1301

$$\sigma = \sqrt{\frac{\sum fd^2}{N}}$$

$$\sigma = \sqrt{\frac{1301}{11}}$$

$$\sigma = 10.8$$

TABLE VIII

Comparison of the Fourth Grade Intelligence
and Educational Quotients

Pupil	I. Q.	E. Q.
A	140	120
B	121	102
C	111	122
D	110	110
E	107	107
F	107	109
G	100	98
H	100	95
I	95	100
J	93	99
K	93	89
Total N is 11		

Mean I. Q. is 107

Mean E. Q. is 105

TABLE IX

Standard Deviation of the Fourth Grade
Intelligence Quotients

Pupil	Score	f	d	fd ²
A	140	1	33	1089
B	121	1	14	196
C	111	1	4	16
D	110	1	3	9
E	107	1	0	0
F	107	1	0	0
G	100	1	-7	49
H	100	1	-7	49
I	93	1	-14	196
J	93	1	-14	196
K	93	1	-14	196

$$\sigma = \frac{\sqrt{\sum fd}}{N}$$

$$\sigma = \frac{\sqrt{2096}}{11}$$

$$\sigma = 13.8$$

TABLE X

Standard Deviation of the Fourth Grade
Educational Quotients

Pupil	Score	f	d	fd ²
A	122	1	17	289
B	120	1	15	225
C	110	1	5	25
D	109	1	4	16
E	107	1	2	4
F	102	1	-3	9
G	100	1	-5	25
H	99	1	-6	36
I	98	1	-7	49
J	95	1	-10	100
K	89	1	-16	256
Total N is 11				1034

$$\sigma \text{ is } \frac{\sqrt{\sum fd^2}}{N}$$

$$\sigma \text{ is } \frac{\sqrt{1034}}{N}$$

$$\sigma \text{ is } 9.7$$

TABLE XI

Comparison of the Fifth Grade Intelligence
and Educational Quotients

Pupil	I. Q.	E. Q.
A	110	118
B	108	102
C	106	111
D	105	121
E	105	115
F	105	114
G	100	114
H	100	102
I	98	110
J	96	98
K	90	98
L	88	94
M	88	84
N	80	70
Total N is 14		

Mean I. Q. is 98.5

Mean E. Q. is 103.6

TABLE XII

Standard Deviation of the Fifth Grade
Intelligence Quotients

Pupil	Score	f	d	fd^2
A	110	1	11.5	132.25
B	108	1	9.5	90.25
C	106	1	7.5	56.25
D	105	1	6.5	42.25
E	105	1	6.5	42.25
F	105	1	6.5	42.25
G	100	1	1.5	2.25
H	100	1	1.5	2.25
I	98	1	-0.5	.25
J	96	1	-2.5	6.25
K	90	1	-8.5	72.25
L	88	1	-10.5	110.25
M	88	1	-10.5	110.25
N	80	1	-12.5	156.25
Total N is 14			$\sum fd^2$	865.50

$$\sigma \text{ is } \frac{\sqrt{\sum fd^2}}{N}$$

$$\sigma \text{ is } \frac{\sqrt{865.50}}{14}$$

$$\sigma \text{ is } 7.8$$

TABLE XIII

Standard Deviation of the Fifth Grade
Educational Quotients

Pupil	Score	f	d	fd ²
A	121	1	17.4	302.76
B	118	1	14.4	207.36
C	115	1	11.4	129.96
D	114	1	10.4	108.16
E	114	1	10.4	108.16
F	111	1	7.4	54.76
G	110	1	6.4	40.96
H	102	1	-1.6	2.56
I	102	1	-1.6	2.56
J	98	1	-5.6	31.36
K	98	1	-5.6	31.36
L	94	1	-9.6	92.16
M	84	1	-19.6	384.16
N	70	1	-33.6	1128.96
Total N is 14			$\sum fd^2 =$	2625.24

$$\sigma \text{ is } \sqrt{\frac{\sum fd^2}{N}}$$

$$\sigma \text{ is } \sqrt{\frac{2625.24}{14}}$$

$$\sigma \text{ is } 13.7$$

TABLE XIV

Comparison of the Sixth Grade Intelligence
and Educational Quotients

Pupil	I. Q.	E. Q.
A	119	131
B	118	133
C	112	109
D	110	109
E	103	109
F	98	98
G	98	98
H	96	104
I	96	95
J	95	97
K	95	96
L	92	95
M	92	90
N	90	86
Total N is 14		

Mean I. Q. is 101

Mean E. Q. is 103.6

TABLE XV

Standard Deviation of the Sixth Grade
Intelligence Quotients

Pupil	Score	f	d	fd ²
A	119	1	18	324
B	118	1	17	289
C	112	1	11	121
D	110	1	9	81
E	103	1	2	4
F	98	1	-3	9
G	98	1	-3	9
H	96	1	-5	25
I	96	1	-5	25
J	95	1	-6	36
K	95	1	-6	36
L	92	1	-9	81
M	92	1	-9	81
N	90	1	-11	121
Total N is 14				$\sum fd^2 = 1242$

$$\sigma \text{ is } \sqrt{\frac{\sum fd^2}{N}}$$

$$\sigma \text{ is } \sqrt{\frac{1242}{14}}$$

$$\sigma \text{ is } 9.4$$

TABLE XVI

Standard Deviation of the Sixth Grade
Educational Quotients

Pupil	Score	f	d	fd ²
A	133	1	29.4	864.36
B	131	1	27.4	750.76
C	109	1	5.4	29.16
D	109	1	5.4	29.16
E	109	1	5.4	29.16
F	104	1	.4	.16
G	98	1	-5.6	31.36
H	98	1	-5.6	31.36
I	97	1	-6.6	43.56
J	96	1	-7.6	57.76
K	95	1	-8.6	73.96
L	95	1	-8.6	73.96
M	90	1	-13.6	184.96
N	86	1	-17.6	209.76
Total N is 14			$\sum fd^2 =$	2409.44

$$\sigma \text{ is } \sqrt{\frac{\sum fd^2}{N}}$$

$$\sigma \text{ is } \sqrt{\frac{2409.44}{14}}$$

$$\sigma \text{ is } 13.11$$

TABLE XVII

Comparison of the Seventh Grade Intelligence
and Educational Quotients

Pupil	I. Q.	E. Q.
A	90	96
B	104	108
C	100	95
D	92	92
E	98	104
F	104	107
G	111	102
H	97	103
I	100	100
J	106	104
K	113	108
Total N is 11		

Mean I. Q. is 100.4

Mean E. Q. is 100.8

TABLE XVIII

Standard Deviation of the Seventh Grade
Intelligence Quotients

Pupil	Score	f	d	fd ²
A	113	1	12.6	158.76
B	111	1	10.6	112.36
C	106	1	5.6	31.36
D	104	1	3.6	12.96
E	104	1	3.6	12.96
F	100	1	-.4	.16
G	100	1	-.4	.16
H	98	1	-2.4	5.76
I	97	1	-3.4	11.56
J	92	1	-8.4	70.56
K	90	1	-10.4	108.16
Total N is 11			$\Sigma fd^2 =$	524.76

$$\sigma \text{ is } \sqrt{\frac{\Sigma fd^2}{N}}$$

$$\sigma \text{ is } \sqrt{\frac{524.76}{11}}$$

$$\sigma \text{ is } 6.64$$

TABLE XIX

Standard Deviation of the Seventh Grade
Educational Quotients

Pupil	Score	f	d	fd ²
A	108	1	7.2	51.84
B	108	1	7.2	51.84
C	107	1	6.2	38.44
D	104	1	3.2	10.24
E	104	1	3.2	10.24
F	103	1	2.2	4.84
G	102	1	1.2	1.44
H	100	1	-.8	.64
I	96	1	-4.8	23.04
J	95	1	-5.8	33.64
K	92	1	-8.8	77.44
Total N is 11			$\Sigma fd^2 = 303.64$	

$$\sigma \text{ is } \sqrt{\frac{\Sigma fd^2}{N}}$$

$$\sigma \text{ is } \sqrt{\frac{303.64}{11}}$$

$$\sigma \text{ is } 5.24$$

TABLE XX

Comparison of the Eight Grade Intelligence
and Educational Quotients

Pupil	I. Q.	E. Q.
A	101	107
B	100	100
C	90	80
D	107	102
E	116	132
F	94	99
G	110	107
H	90	92
I	115	101
J	99	99
K	85	80
L	122	120

Mean I. Q. is 104

Mean E. Q. is 101.75

TABLE XXI

Standard Deviation of the Eighth Grade
Intelligence Quotients

Pupil	Score	f	d	fd ²
A	122	1	18	324
B	116	1	12	144
C	115	1	11	121
D	110	1	6	36
E	107	1	3	9
F	101	1	-3	9
G	100	1	-4	16
H	99	1	-5	25
I	94	1	-10	100
J	90	1	-14	196
K	90	1	-14	196
L	85	1	-19	361
Total N is 12			$\sum fd^2 = 1537$	

$$\sigma \text{ is } \sqrt{\frac{\sum fd^2}{N}}$$

$$\sigma \text{ is } \sqrt{\frac{1537}{12}}$$

$$\sigma \text{ is } 11.31$$

TABLE XXII

Standard Deviation of the Eighth Grade
Educational Quotients

Pupil	Score	f	d	fd ²
A	132	1	30.25	915.06
B	120	1	18.25	333.06
C	107	1	5.25	27.56
D	107	1	5.25	27.56
E	102	1	.25	6.25
F	101	1	-.75	.56
G	100	1	-1.75	2.88
H	99	1	-2.75	7.56
I	99	1	-2.75	7.56
J	92	1	-9.75	95.06
K	80	1	-21.75	473.06
L	80	1	-21.75	473.06
Total N is 12			$\Sigma fd^2 =$	2369.23

$$\sigma \text{ is } \sqrt{\frac{\Sigma fd^2}{N}}$$

$$\sigma \text{ is } \sqrt{\frac{2369.23}{12}}$$

$$\sigma \text{ is } 14.05$$

enriched fields. These pupils were not passed to the grade higher because their work was not all on the fourth grade level.

Students A and B in the sixth grade took the arithmetic and English in the seventh grade. These pupils have plans by which each may finish the seventh and eighth grade course the following year.

Student C was granted the privilege of taking the seventh grade course in arithmetic. He chose to use his spare time for cornet practice, however.

Pupils M and N of the fifth grade group are much over age. Reference to both I. Q.'s and E. Q.'s will suggest possible reasons for some of their trouble in school. These boys are in the fifth grade home room for social advantages to them. They probably will progress with the group. Both do very satisfactory work in the shop. Both enjoy work in art and do satisfactory fifth grade level work in art. Both pass to the fourth grade room during the English period and work with the fourth grade group while their own classmates have fifth grade level English. Both have physical education with the fifth graders and return to the fourth grade room for arithmetic, while their classmates have fifth grade level arithmetic. They participate in all subjects with their classmates except English and arithmetic. Their progress is satisfactory and both boys seem to be happy with their work.

These cases are representative of approximately 20% of the students from grades one to nine inclusive who do not do all of their work on one grade level. Such a program will

present a wide range in variability by grades. Homogeneity is sought by subjects.

THE SECONDARY SCHOOL

Fortunately, in dealing with an assortment of youth, the lone educator has no end of aid. Besides years of habit and experience, he can depend upon the state to require some subjects by law. If any of his students expect to go to college, he knows they must have so many hours of a limited number of subjects required by accrediting associations. He can consult educational journals and teacher college faculties to obtain research data on which to base judgments. The model courses prepared by course of study committees and authors and publishers of text-books all offer sound suggestions. But in the final analysis he must ask, "Does this plan suit by school, this town? Will it cause desirable changes?"

To answer these questions, teachers and administrators need measuring rods; they vary according to the educator's point of view, but here are four suggested by Dr. Thomas H. Briggs. They are

1. A clear conception of the major elements of a philosophy of life, or society, and of government.
2. Appreciation of the significant characteristics and needs of modern life.
3. A clearly formulated and convincing philosophy of education.
4. Facts, data, the results of experiment and research.⁶

As a basis for the ideal program, Bobbitt has suggested that studies be patterned after adult community life; and

⁶ Dr. Thomas H. Brigg, Scholastic Magazine, Feb. 23, 1935.

Charters has proposed that courses be composed by a survey of the lives of effective men and women. In the field of theory, these are stimulating suggestions; but often the school is held in bondage.

A great obstacle to the ideal program is the abstract, but so real, pressure of tradition and precedent. Much that is traditional in school is worth preserving; but on the whole, program changes lag far behind the revolutionary changes of recent years in our ways of thought and living. Studies have shown that the traditional program shows unsatisfactory results. And still, school reforms must battle hundreds who object that what was good enough last year is good enough now. It wasn't good enough last year, either, but we don't see that.

The secondary school curriculum is in the very beginning stage of enrichment. The elementary curriculum was first organized and administered. It is felt by the school teaching staff that it is well in progress of enrichment which probably will continue indefinitely. Most of the experimental effort during the first two years 1931 and 1932 was concentrated on an elementary program that was best adapted to the local community. This incidentally prepared the way for secondary education and trained a staff that could develop a satisfactory curriculum for an adapted secondary school at Goodwell.

natural Approximately seventy-five pupils are enrolled in the secondary school. This number may fluctuate slightly from year to year. The tables that follow show by classes the pupils that have been graduated that attended college or are

attending college at the present time (1937). The first graduating class at Goodwell was in 1933. Four classes have graduated since this first class. A complete follow-up program has been put in use for the purposes of use in curriculum studies of secondary school needs at Goodwell. The high percentage of college attending graduates of Goodwell High School is perhaps due to the convenience of college facilities. Panhandle Agricultural and Mechanical College is a four year accredited institution that offers not only a splendid vocational curriculum but also teacher training facilities.

TABLE XXIII
Class of 1933

Total number in class-----	17
Total number attended college-	16
Total finished college, 1937--	11

The one pupil who did not attend college was married after graduation to become a housekeeper.

TABLE XXIV
Class of 1933

Teachers-----	8
Housewives-----	4
Printing-----	1
Grocery Clerk-----	1
In school (undergraduates)----	2
Unemployed-----	1

More members of this class are teachers due to their special training in manual arts, science, and agriculture. These courses are added at present to more schools in the panhandle area than ever before. Five young men of this group

were favored due to their ability to coach athletics. The turnover of athletic coaches was abnormally great during this year (1937), however.

Interest in agriculture has decreased in the panhandle area during the past five years. This is due to the successive crop failures and agricultural losses during this period of time. New interest apparently has been aroused in agriculture during the past year, however, with the possibility of subsistence irrigation from deep wells.

Table XXV is an analysis of the graduating class of Goodwell High School in 1934. This group has completed three years of college work. Most of them will continue their school work in September, 1937.

TABLE XXV
Class of 1934

Number in class-----	13
Number attending College-----	10
Railroad section worker-----	1
Employed(farmers)-----	2

TABLE XXVI
Class of 1935

Number in class-----	18
Number attending college-----	16
Married-----	2

TABLE XXVII
Class of 1936

Number in Class-----	22
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Number attending college-----19

Married----- 2

Employed (filling station)----- 1

Eighty-seven per cent of the four classes that have graduated at Goodwell High School attended college or are attending college. Eight per cent (girls) were married during the following year to become housekeepers. Five per cent are employed by miscellaneous occupations, farmers, section workers, and filling station operators.

TABLE XXVIII

GRAPH OF INTERESTS AFTER HIGH SCHOOL GRADUATION

Percentage of pupils attending college-----	87%
Percentage of pupils married after completion of high school-----	8%
Percentage of pupils working at gainful employment-----	5%

Results Two factors have influenced the high percentage of college attendance after graduation from high school of Goodwell pupils. The first, convenient college facilities, has been mentioned. The second, the economic condition of the panhandle area, is a temporary condition. This factor influences the curricular content and procedures very greatly. During prosperous years, the farmers' income in this area is high. Fewer boys and girls will attend college because employment is more available. This community will always have a high percentage of high school graduates attend college, however.

The high school curriculum at Goodwell has been primarily college preparatory. Since the beginning of the 1934 and 1935 term a sincere effort has been made to formulate a curriculum

that is functional in adolescent life. The curriculum is organized around the seven cardinal principles of education. The school day has been lengthened; equal emphasis is placed on activities that formerly were extracurricular and the traditional high school subjects. Extra-curricular credit is given for worthy home membership and health. With the co-operation of the churches a program of character education is offered. This program supplements the citizenship and social studies program. Definite activity assignments of radio programs supplement all subjects of the program of studies of the curriculum.

Participation in community group activities and community leadership is offered by college, church and civic organizations with their assemblies, plays, choirs, and orchestras. Many of which are rehearsed during the art, music, and dramatics periods of the high school program of studies.

The primary objective of the curriculum is the co-ordination of the social and school lives of the high school pupils.

Small high schools should strive for permanent improvement, of course; but when the obstacles are stubborn, prudence demands consideration for immediate relief. Possibly, too, what appears to be only expedients will prove to have permanent value. Supervised correspondence study for small high schools, interdistrict co-operation and employment of traveling supervisors and special teachers, developing techniques for handling combined classes and grades under some adapted type of instruction, six man football teams, courses especially designed to relieve the special difficulties of small schools

should be extended.

After all efforts failed for participation in Smith-Hughes Work and George-Dean Work, the program was planned to provide other work that also was of interest to high school pupils. Additional courses were added to the industrial arts curriculum; likewise additional work was offered in home economics and the program planned as similar as possible to the vocational home economics program. Band and orchestra groups met each day for one hour during the school day and credit offered toward graduation. Art was offered for two units of credit toward graduation by the art supervisor. Typing was offered by correspondence, as well as other courses that could not be offered by the limited facilities.

Supervised correspondence courses have proved very stimulating to the development of a functional high school curriculum. Typing by correspondence supervised by a teacher who has had work in typing is one of the several popular courses. Pupils in this course receive individual guidance and supervision on one of the four typewriters at the school. Practice work may be done on one of these machines or on one in the pupil's home. Seven pupils took typing in this manner during the school term 1936-1937. This correspondence course was questioned in the beginning by the school people over the state. Since it was experimental, and offered by the W. P. A. in order to offer additional courses to small high schools for curriculum enrichment, all pupils took the work as a fifth subject. This made the class a select group. Their success, however, has aided in the organization of a supervised cor-

respondence course in typing for 1937-38. Pupils take this course not for secretarial training but for use in high school work and all correspondence in the future whether that be college work or business. Pupils probably will not reach the maximum in speed that pupils reach in formal typing laboratories but they receive the basic fundamentals and acquire sufficient speed and efficiency for ordinary school work and all ordinary practical work in typing.

Pupils who type twenty to thirty words per minute, with proper technique can, if necessity arises, acquire greater speed with practice and thus individually prepare themselves for stenographic work. These pupils meet as a group only when the supervisor makes an appointment with them. The correspondence directions are complete and specific. The typing supervisor teaches four classes in addition to the supervision of typing.

Diesel Engines is another supervised correspondence course offered at Goodwell during the 1936-37 school term. Five boys were enrolled. This course was supervised by the shop instructor. The class met as a group more often than did the typing class. This was due to the advantages of group thinking and laboratory work necessary in problem solving. Laboratory facilities were furnished by a discarded diesel engine in the college shop and road maintainers of the highway department. This course can be offered without laboratory facilities and is organized to make provision for such a situation. The laboratory greatly benefits the pupils in the study of several specific units, however. This course is also

a part of the program of studies for 1937-38.

The shop instructor meets four classes each day in addition to his correspondence supervision. The class is frequently met at night to avoid conflicts in classes of members of the class. This can easily be avoided. This course was organized after school had begun in September. It was taken as a fifth subject. Due to a better understanding on the part of the superintendent of this supervised correspondence work, the daily program will provide for supervised correspondence studies during the school day in 1937-38.

Training in music and art for their own sake deserves a generous slice of the student's schedule. Most junior high schools do require music courses but the prestige of music suffers from the fact that often no credits are given for its study, possibly because the students enjoy it. The old-fashioned principle behind this attitude was one stated by Mr. Dooley: "It matters not what you teach a child just so he doesn't like it."

Two units of credit are offered at Goodwell in band and orchestra which meet every day for forty-five minutes. These groups also appear in concerts, programs, assemblies and parades. Definite courses of study are organized for each organization. An average of 62% of the total enrollment of the high school pupils for a three year period, 1933 to 1936, participated in either or both organizations. An average of 84% of the total enrollment of high school pupils for the same period participated in either one or several of the following musical activities, band, orchestra, boys' glee club,

girls' glee club, girls' quartet, boys' quartet, mixed quartet, and mixed chorus.

Two units of high school credit are offered in graphic arts and crafts. These groups meet at 8:00 o'clock A. M. as a combination class during the same period in the same room. Such a program can readily be administered because of the individual work that is carried on. This course is also open to exceptional or special children in the seventh and eighth grades. As for the graphic arts and crafts, the percentage of time allotted to these studies is much too small in most high schools. Several hours a week at least are needed to provide students with a basis for artistic leisure pursuits when the thirty hour week arrives. These studies will also introduce a small group to professional careers, as teachers or artists, but the high school art course is less concerned with vocations than avocations. The interests and habits developed by the art teacher serve permanently to enrich living and leisure.

Another reason why both music and art are necessary in high school are physiological. While the senses of sight, touch, and hearing are not more acute in adolescents than in others, for the same reason youth pays great attention to its senses. At the same time, the ripening vitality of youth demands a creative outlet as at no other stage of life. Prior to this age, students are indifferent if not hostile to efforts to lead them into the world of the senses. When they do finally venture to notice song and color, the change is most gratifying. It is necessary for the high school to di-

rect youth's new feeling for sensation into satisfactory channels. These two, what might be known as aesthetic studies, have proved themselves very functional in adolescent living in this small high school.

The literature curriculum is based on the philosophy that pupils in general derive their greatest benefit through an extensive and varied program of reading, much of it preferably of the pupil's own choosing. That an encouragement of free, adventurous reading over wide areas and among various types of literature will secure the healthiest and the happiest results.

In selecting reading material for high school classes there is less emphasis than formerly upon the English and the American "classics". This change does not imply a loss of friendliness toward the older writers of English prose and poetry; it simply means that we who are responsible for the literature curriculum must take the pupil where we find him and seek to arouse an interest that leads constantly toward more stimulating and more worthy reading. For many groups wise selection will dictate many titles from the English and American classics; for other groups choice will more wisely fall upon books and periodicals of more modern date and more immediate appeal.

The literature curriculum recognizes the responsibility for the non literary boy and girl. English is a tool subject; only a small percentage of our pupils will ever recognize subtlety of style. To dissect the essay and formalize the poem is a deadening process. A recognition of the charm of poetry should never blind us to the values of simple utilitar-

ian prose.

All crises in our national history have resulted in changes in emphasis and in content in the group called the social studies; history, civics, sociology, economics, and combinations of these subjects. Demands for increased attention to the social studies have followed our present situation. These demands are coming from youths, adults, and educators. In the more progressive secondary schools the social studies are regarded as the most important group for purposes of integrated study. Social studies now require double the amount of time devoted to any of the other groups of subjects in other schools.

The social science curriculum at Goodwell is in the state of revision with a shift of emphasis. Compromise in both materials and their presentation is the outgrowth of a proposed program that will be the community's agency for social control and social differentiation. This curriculum will be advanced in a laboratory equipped with visual aids and radio, in which the teacher is a co-ordinator of discussion groups.

The mathematics curriculum presents composite mathematics and algebra and geometry alternately. High school arithmetic and advanced algebra have been offered only when sufficient pupils demanded it. These courses seem least functional to the high school pupils. The theory that mathematics training "disciplines the mind" and transfers the skills acquired in other branches of learning is now widely questioned. Today mathematics is largely a tool subject.

General science and biology are laboratory subjects which

receive a great deal of emphasis in the science curriculum. These activities offer introductory and exploratory opportunities in which pupils engage with enthusiasm. Vocational aims are not the primary issues with these courses, but contacts with conservatories, aquaria, and living specimens which present the study of life, modify the adolescent's thoughts and actions. These particularly help youth to understand his environment in terms of biological truths and help him to take intelligent care of his body. Besides this knowledge of life processes, pupils learn many practical lessons about their gardens and pets at home.

General science is taught as a related subject to shop work and home economics in several units. Here the correlation is advanced by the shop teacher who also teaches general science.

Biology includes one four week unit in agriculture with emphasis on livestock and gardening. An extensive unit in deep well irrigation was developed in this course during the school year 1936-37. At least one-half of the biology course is planned to observe and study problems of local interest.

General agriculture is offered when pupils demand the course. Successive crop failures and unsuccessful attempts of controlling wind erosion have been disheartening and interest in agriculture has suffered most. This course has splendid livestock laboratory facilities at the college experimental farm. Most of the time spent for the course is spent in the field or farms and with home projects. If feed can be produced again, this course will be one of the most

popular of the group. The renewed interest in the deep well irrigation project sponsored by Panhandle Agricultural and Mechanical College has reviewed the prospects for a splendid course in agriculture for 1937-38.

HOME MAKING

The affairs of the household from birth to death are at the core of national welfare. Only in the last three years has it begun to receive the amount of emphasis at Goodwell that it deserves. While problems in home economics can be adapted to pupils in the elementary school, they may also demand the most critical judgment that a university can develop. Social problems, food research, and the development of consumer judgment in all fields are home affairs that challenge the best brains of the land.

The function of home economics is to survey all fields of knowledge, examine all lives of human activity and to adopt whatever may contribute to the art of making a home. The subject matter of home economics traditionally centers about food, clothing, and shelter. In the past, emphasis was largely concentrated on food and clothing. Much attention was given to the acquiring of skills and information. Gradually the necessity for development of selective judgment was recognized. Still more recently the responsibility for worthy home membership has been assumed by the home economics teacher, who is also girls' counselor. Shelter is a major unit and very functional.

Home economics classes have the means for reaching the homes of the community with home projects. The curriculum

is restricted to the laboratory. The nature of home economics fits the entire curriculum for functional home and laboratory work in this local community. Three courses are offered. Home economics II and home economics III are alternated. Home economics I is offered each year. 88% of the girls enrolled in high school during a three year period 1934-1936 participated in this program.

INDUSTRIAL ARTS

Three units of credit are offered in the industrial arts curriculum at Goodwell. These include two units of woodwork and one unit in mechanical drawing. This department supervises the N. Y. A. program. All school furniture repairs and much construction work is done by this special group.

In a community special interests are favored with the vocational departments only when it serves the general public interest to train students for a place in these industries. As a general rule the pattern of industrial training in the high school is taken directly from the pattern of industries in the community according to the procedure recommended by Bobbitt. A sincere effort was made during the summer of 1937 to bring an industrial education program to Goodwell to qualify for diversified occupations training. The instructor and equipment could qualify for such a program but the coordinators of the federal program have hesitated because of the size of the town with its limited occupations for apprentice training. It is the plan of the department to continue with its efforts to become a part of this splendid program.

The shop offers splendid opportunities for expression

of adolescent boys' creative abilities. Although this program is presented last, it is decidedly not least in importance. Here many boys find themselves. There are many types of intelligence. The boy with a poor ability to add a column of figures may perform wonders in a cabinet shop. Although this curriculum is not as functional vocationally at present as is desired the entire present organization is prepared to present an industrial educational program when the State Industrial Educational Department receives funds and can provide such for small community consolidated schools. In the meantime the department will offer a broad course in practical arts. Woodwork is the principal work of the department. Repair units and units in care and operation of electrical appliances are included.

CONCLUSION

Goodwell's school program depends on the capacities and interests of the teachers. It is true that funds and the will are at hand, but a proved course of study is not available and often the inclination to experiment is weak. Too many teachers prefer to teach as they were taught and thus find it no easy task to take the child at his level and stimulate growth irrespective of groups.

Teachers must be trained to make adjustments. Training in service is accomplished most quickly if teachers have the ability to make necessary adjustments and appreciate social trends. The success of any school program depends on classroom teachers.

Teachers at Goodwell have welcomed a longer school day. These creative teachers have through their perseverance, developed a splendid activity program that challenges the ingenuity of every child. They have made a splendid contribution in providing for the varying abilities of pupils in a small school.

THIS REPORT WAS TYPED BY GENEVA WILLIAMS