

A Proposed Plan of Supervision for
the Rural Schools of Arizona

by

E. R. Brimhall

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Approved:

Major adviser

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CHAPTER I

INTRODUCTION

A. Supervision

Educators in general accept the philosophy that the chief purpose of supervision is the improvement of instruction through the direction, guidance, and training of teachers. Supervision does not merely involve inspection, criticism, and the proffering of suggestions for improvement, but is a creative enterprise. Strayer and Scott in speaking of supervision say that. "It has for its objective the development of a group of professional workers who attack their problems scientifically, free from the control of tradition and actuated by the spirit of inquiry. Supervision seeks to provide an environment in which men and women of high professional ideals may live a vigorous, intelligent, creative life."

Those charged with supervisory duties are faced by the task of (a) properly inducting new and inexperienced teachers into the profession, (b) furnishing leadership to experienced teachers, (c) aiding teachers in developing and recognizing the place of the school in society, (d) discovering, recognizing, and building on the strong points in individual teachers, (e) providing constructive criticism and

1. Strayer, G. D. and Scott, Z. E., "The Meaning and Necessity of Supervision", National Education Association, The Department of Superintendence, Eighth Yearbook, p. 9 (1930).

correct procedures to those teachers that are failing, (f) adapting the application of scientific research and goals to the capacities of individual teachers, and (g) encouraging a professional spirit among teachers.

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³
George C. Kyte in his book "How to Supervise" expresses the general aim of supervision as, "The maximum development of the teacher into the most professionally efficient person she is capable of becoming at all times." Supervision, broadly defined, aims to obtain the maximum development of the child through increased teaching efficiency, student motivation, and community interest.

B. Need for the Study

Among the rural school personnel there is a large body of inexperienced, immature, inadequately trained teachers. This group needs more professional leadership than any other class of teachers, but they receive far less. Even though the personnel of this unit of the educational system needs more systematic guidance, no unit offers more difficult supervisory problems. The fact that the territorial expanse is great, the per capita wealth small, a community attitude lacking, and a persistent demand for improvement non-existent, has made adequate supervision almost impossible.

Even though substantial resistance to improvement is

2. Ibid., pp. 10-13.

3. Kyte, G. C., How to Supervise, p. 45.

offered by the situation improvement is by no means impossible. A large proportion of the elementary school children of Arizona are attending rural schools. The low standard of rural schools, the large rural school attendance, and a ray of hope for improvement of the situation reveals a need for a study to determine the present status of supervision in the rural schools of Arizona and for an attempt to improve this supervision so that these rural teachers and pupils might stand on a more equal basis with the urban teachers and students of the elementary schools in the cities of Arizona.

C. Related Studies

In some other states related studies have already been undertaken. These studies seem to indicate that supervision has a definite place and value in rural areas.

The first experiment of this type was carried on in Brown County, South Dakota. Schools were divided fairly between an experimental and a control group. Initial tests were given in the fall of 1919, and the final tests in the spring of 1920. The experimental group, in which a program of supervision was carried on, during this seven-months period made 94 per cent more progress in reading, composition,

4. Edwards, Newton, "Objective Determination of the Results of Supervision", Elementary School Journal, Vol. 31, p. 567 (April, 1931).

spelling, penmanship, and arithmetic than did the unsupervised control group.

⁵
W. C. Hoppes conducted an experiment in Oakland and Macomb Counties, Michigan, to determine the effectiveness of rural supervision. A supervisory program was carefully conducted in the schools of Oakland County, while the schools of Macomb County were used as a control group in which no supervision was undertaken. Standard tests were used in determining the initial point and final outcome as well as for pairing the schools on a fair basis. The initial tests were administered in September of 1924, and the final tests between April 24th. and May 14th. of 1925. The supervised group during the school year progressed 170.8 per cent of a normal year, while the unsupervised group progressed only 97.0 per cent of a normal year. This means that the supervised group made 76 per cent more progress than did the unsupervised group. Assuming that the unsupervised group achieved 150 days of school work the supervised group achieved 264 days.

Table I shows the results of an experiment undertaken
⁶
by J. E. Lombard in certain parishes in Louisiana.

5. Brueckner, Leo J., "Evidence of the Value of Supervision", National Educational Association, Department of Superintendence Eighth Yearbook, p. 100 (1930).

6. Ibid., p. 102.

Table I. Results on the Stanford Achievement Test as administered to an experimental and a control group in two Louisiana parishes. (The tests were administered in September of 1926 and May of 1928.)

Groups	Average Score		Increase	Per cent of increase over Initial test
	Initial Test	Final Test		
1. Control Group.....	32.5	40.26	7.76	23.9
2. Experimental Group.	30.55	42.91	12.36	40.4

The rate of improvement in the supervised parish was 16.5 per cent greater than in the control parish.

Between 1923 and 1925 H. N. Sherwood, State Superintendent of Public Instruction, directed an experiment in certain counties in Indiana to determine the value of the county unit plan of supervision. A summary of the results are given in Table II.

Table II. Per cents by which progress in experimental counties exceed progress in control counties in Indiana. (The supervisory program was carried on for two years.)

Grades	1924	1925
1. Third grade.....	7.3	14.6
2. Fourth grade.....	6.5	25.4
3. Fifth grade.....	17.9	31.4
4. Sixth grade.....	23.8	24.6
5. Seventh grade.....	14.8	37.9
6. Eighth grade.....	14.3	26.5
Average	14.9	25.7

7. Ibid., p. 103.

While the experimental counties made more progress than the control counties both years, it is apparent that greater results were obtained by the second year of supervision than by the first year.

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Pittman's Study of Rural Supervision attempted to answer the following questions: (1) Does the supervision of schools pay? (2) If so, to what extent? (3) In what ways, and under what conditions? (4) What is the effect of supervision upon the work of rural schools when supervision is done according to the zone plan? The study showed that pupils in supervised schools advanced about 194 per cent as far in achievement, measured by tests as pupils in unsupervised schools.

The value of supervision as measured by achievement in these studies all indicate that supervision has positive value. It is not to be assumed that achievement was the only value that was apparent. For example the report on the Indiana experiment indicates that other outcomes were improvement of attitude toward the school, motivation of the children, and improvement of the teaching and learning situation through improvement of buildings, equipment and school grounds, and increased instructional supplies.

8. Ibid., p. 119.

D. The Problem

The problem of this study is to discover the present status of rural school supervision in Arizona, and to recommend a practical program of supervision for the improvement of practices in Arizona.

E. The Method of the Study

An effort is made to give a brief statement of current supervisory practices and theory. This statement is used as a basis for interpreting and evaluating the practices in rural school supervision in Arizona as revealed by sixty-three interviews with rural school teachers. With the particular situation, difficulties, and status of supervision in Arizona in mind the writer makes an attempt to construct a practical program of supervision for the rural schools of Arizona.

E. The Data

As far as possible objective data and measures are used in this study. The data are collected from books, reports, periodicals, yearbooks, and personal interviews. The latter type of data are gathered from sixty-three teachers in thirty-nine rural schools. These schools are selected from six different counties. There are twelve one-room schools, thirteen two-room schools, twelve three-room schools, and two four-room schools. The data obtained by the personal interviews are carefully compiled in tables, and are interpret-

ed and evaluated in light of accepted practice and theory.

CHAPTER II

SUPERVISORY THEORY AND PRACTICE

A. Supervisory Program

1. The Necessity of Planning Supervision

Supervision without a definitely outlined program of procedure can be expected to accomplish little if any good. Supervision without a program has neither a starting point, nor a destination. Neither supervisor, teacher, or pupils can have a definite idea of the difficulties before them, nor how they should be attacked, nor can they have any assurance that the difficulties have been mastered.

2. Elements of a Good Plan

Supervision must be a clearly defined, definitely organized program. A program of supervision should contain the following elements:

- "(1) A set of clearly stated, defined objectives
- (2) A clear-cut outline of the means, devices, and procedures to be utilized in the attainment of these ends
- (3) A clear-cut outline of the criteria, checks, or tests to be applied to the results of supervision, in order to determine the success or failure of the program."

B. The Objectives

1. Derivation of Objectives

The objectives for any supervisory program should grow out of the actual situation. The needs in the actual

9. Burton, W. H., "The Planning of Supervisory Programs", N. E. A. Department of Superintendence, Eighth Yearbook, p. 88.

situation can only be ascertained by a complete survey. Miss
10
Helen Heffernan suggests that the items for study with which
the rural supervisor should become thoroughly familiar
through a preliminary survey are:

- "(1) The organization of the county educational system
 - (a) Distribution of schools by the number of teachers employed
 - (b) The training and experience of the teachers to be supervised
 - (c) The distribution of the pupils by grades
 - (d) The comparison of the total high school enrolment with the total elementary enrolment
- (2) Previous supervisory programs
 - (a) Results of standard tests administered the previous year
 - (b) The former objectives of supervision
- (3) Additional pertinent data
 - (a) Evaluation of the course of study as viewed from the present situation
 - (b) Nationality of pupils
 - (c) Library facilities."

In addition to this preliminary survey a survey through the use of standard tests should be made, and the results compiled and studied.

With all these data collected, compiled, and distributed to the teaching personnel the supervisor and teachers are ready to construct a supervisory program scientifically adapted to the conditions as they exist. These data will reveal the needs, problems, or defects which may be made into a definite list of objectives. Barr and Burton offer the
11
following suggestions in regards to setting up and accomplish-

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10. Heffernan, Helen, "A Plan for Effective Rural Supervision", School Executives Magazine, Vol. 48, p. 390 (May 1929).
 11. Burton, Supervision of Elementary Subjects, p. 8.

ing the objectives:

- "(1) Construct a total list of needs, problems, defects, or new departures which may be made into definite objectives.
- (2) Select from this list a small number of problems and state them definitely as the objectives for the term or year.
- (3) Outline for each objective the specific and detailed procedures which it is hoped to utilize in achieving the ends sought. They must be flexible in operation. Flexibility will be aided by (a) keeping the plan simple and brief, and (b) providing for a maximum of teacher participation.
- (4) Outline clearly the criteria, tests, or checks which can be used fairly to determine the success or failure of the plan at the close of the period for which it was constructed.
- (5) Publish this plan in printed, mimeographed, or typewritten form. Place it in the hands of teachers, supervisors, principals, and if necessary, devote a general meeting to explanation and discussion."

2. Types of Objectives

There are two types of supervisory programs, namely, specific programs, and general programs. The objectives in a specific program will deal with matters pertaining to some particular subject. The objectives should grow out of difficulties as discovered through a survey and testing program in the subject under consideration. For example it may be discovered that the students of a certain school system do inferior work in arithmetic reasoning. A specific program should be planned to discover and correct the difficulties.

A general program should deal with such problems as affect the entire student body and teaching staff. Discipline and character training furnish problems of this type. Objectives should grow out of a careful study of the situation. General programs of supervision are especially applicable in

high schools and platoon schools, or in any type of school in which different teachers teach only one or two subjects. It would hardly be expected that an English teacher would be interested in a program of supervision having certain definite objectives pertaining only to the teaching of geometry.

C. Supervisory Devices

1. Observation of Classroom Teaching

Of the many supervisory devices observation in some form is perhaps the oldest. Besides being the oldest device it is listed by most authorities as the most important. If observation is to be of greatest assistance to the teacher the supervisor's activities will be directed toward (1) planning the observation, (2) getting the most out of the observation, and (3) analyzing the teaching observed.

Observation to be effective must be planned. The time of the drop in, genial type of observation has passed. The supervisor must answer the question, Shall visits be made on schedule or on call? Unannounced or announced? Current practice seems to indicate that none of these types should be used in exclusion to the others. Each type has a place and purpose. Each type has its proponents and opponents. The most idealistic is visitation on call, but for purposes of rural school supervision visitation by schedule, and

12. Kyte, op. cit., p. 138.

visitation by announcement have their advantage. Kyte in the face of this divergence of opinion and lack of experimental proof states that "The best assumption that can be made seems to be that professionally minded supervisors can visit professionally minded teachers any time that the former can be helpful to the latter."¹³

Classroom visitation without prior preparation on the part of the supervisor has little value. Some doubt the advisability of a supervisor's entering a classroom unless he has a definite purpose in mind, and unless he accomplishes something of value and of assistance to the teacher and her pupils.¹⁴ Preparation should be made beforehand for the accomplishment of this definite purpose. This preparation should most generally consist of (1) studying the teaching situation, (2) studying the training and experience, of the teacher, (3) if the teacher has been previously visited, studying notes and comments taken at previous visits and conferences, and (4) setting up objectives to be accomplished.

If the most is to be accomplished by the supervisor during the visit there are certain principles that must be observed. The manner in which he enters the room, where he sits, length of stay, and his activities during the visit

13. Ibid., p. 138.

14. Gist, A. S., Elementary School Supervision, p. 5.

have great bearing upon the success that will be obtained. The supervisor should if possible enter the class room at the beginning of a lesson. He should enter quietly, and take a place in an inconspicuous place in the room. He should remain long enough to get the whole lesson or lessons observed. There is some doubt among authorities as to the desirability of note taking while in the room, but those opposed to note taking in the room agree that notes should be taken by the supervisor immediately after the visit. Those that would take notes while observing are in the majority, but the members of this group do not agree upon the kind and amount of the notes. Most of this group agree that well arranged check lists should be used.

Supervisors all agree that, whether notes have been taken in the classroom or on the outside, a thorough analysis of the teaching and teaching situation should be made as soon as possible after the observing has been done. The purpose of this analysis is to show clearly those portions of the teaching and teaching situation that need correction, and improvement; and to note items that deserve credit.

2. Conferences

As each visit should be preceded by a purpose carefully thought through, so should each visit be followed by a

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conference carefully planned. Barr and Burton classify conferences as follows:

- "1. Group conferences, or teachers meetings
 - a. Staff or faculty meetings
 - b. Grade or intergrade meetings
 - c. Committee meetings
2. Individual conferences
 - a. The conference following a classroom visit
 - b. The follow-up conference
 - c. "The pre-teaching conference."

Since by the follow-up conference they mean a conference which is one of a series of conferences in connection with a series of visits in which some definite problem or difficulty holds the center of attention, the follow-up conference in this study will be used as meaning any conference held with an individual teacher after classroom observation.

The notes taken, and analysis on the observed teaching and teaching situation in conjunction with previous records of visits and conferences with the teacher in question should be used in setting up a definite plan for a follow-up conference. This conference furnishes an opportunity for the supervisor to give definite, constructive criticism to the teacher. This criticism to be of value must be positive in nature. To tell a teacher that a certain procedure is wrong is not enough. She must be given a correct procedure in its place.

15. Barr and Burton, The Supervision of Instruction, p. 158.

The previsit conference has a definite place in supervision. This conference provides an opportunity for the supervisor and teacher to construct a plan of procedure or phase of procedure in the art of teaching which is to be tried out before the supervisor at the next visit. In this type of conference the supervisor has an opportunity to tell the teacher just what things he intends to center his attention upon in his observation. In rural supervision this type of conference is almost impossible, but through personal and circular letters rural supervisors accomplish the same end.

3. Demonstration Teaching

There are three well recognized types of demonstration teaching, namely, (1) demonstration by a supervisor for the classroom teacher, (2) demonstration by a teacher with her own pupils in her own room for other teachers, and (3) demonstration by a teacher or supervisor for a large group of teachers outside the regular classroom, and using children not in her own classroom. All these types call for careful preparation. Demonstration by a supervisor for a teacher in her own classroom calls for good judgment on the part of the supervisor. These demonstrations should rarely if ever be given without previous arrangement with the teacher. It is almost impossible for a supervisor to take over a class from a teacher on the spur of the moment without doing more damage than good.

16: Kyte, op. cit., p. 281.

17: Nutt, H. W., The Supervision of Instruction, p. 142.

The purposes of a carefully planned demonstration
18
lesson, according to Kyte are:

- "1. It can be used to convey to teachers the standards for good teaching desired by supervisors
2. It can be used to furnish teachers with concrete illustrations of methods, devices, and classroom organization."

The success of demonstration teaching lies in certain steps that must be taken. The steps involve: (1) determining teachers' needs, (2) preparing the teacher for observing the demonstration, (3) preparing the demonstrator, (4) guiding the teachers' observation, (5) checking results
19
through classroom observation.

Demonstration teaching should be furnished for teachers only after the supervisor has made a careful study of the needs of teachers to be present at the demonstration. The teachers should be made to feel their own needs through bulletins, conferences, and discussion meetings. The teachers should be made acquainted with the aims, methods, and
20
techniques of the demonstration lesson. This is necessary that they may take notes upon the lesson more intelligently.

Whether the demonstrator is to be the supervisor, or some teacher he should be acquainted with the aims, methods, techniques to be used, and the phases of the lesson that are to be definitely stressed.

18. Kyte. op. cit., p. 272.

19. Ibid., p. 272.

20. Barr and Burton, op. cit., p. 429.

The teacher should be prepared by the supervisor to get the most out of the lesson. Many supervisors insist that notes be taken during observation, and to do this they must beforehand understand what they are to look for and what phases to center their attention upon. The responsibility for this preparation falls upon the supervisor.

Every demonstration lesson should be followed by a discussion conference in which the teachers should be led to discuss the points noted by them. The supervisor at this time has an opportunity to correct any false impressions that any teacher may have gotten, and to give the teachers his philosophy of what constitutes good teaching.

There is still one other very important phase of demonstration teaching, and that is the follow-up work. The supervisor must discover through visits to classrooms the real results of the demonstration. He should note the successes and failures in teaching techniques stressed in the demonstration, and aid the teachers to fix them permanently into their teaching procedure.

4. Teachers Meetings

The two main types of teachers meetings are; (1) meetings for administrative purposes, and (2) meetings pertaining directly to the improvement of classroom teaching. This study is interested in only the second type.

The teachers meeting as a device of supervision is recognized by all authorities on supervision. It is a device that has great potentialities, but may provide many difficulties if not properly provided for. No instrument of supervision calls for more intelligent planning than does this device. ²¹ Barr and Burton offer the following points of assistance that may be used in organizing teachers meetings:

1. The topic, or series of topics, should deal with live issues with which the group is vitally concerned.
2. Teacher-participation in planning and administering meetings should be invited and secured.
3. A mimeographed brief should be mailed out in advance to those who will be present.
4. Only those teachers vitally interested should be asked to attend.
5. A summary of the discussion which took place at the meeting might be prepared and sent to those who attended.
6. Provision should be made for the expression of opinion from the audience.
7. The meeting should be kept within the group as a rule.
8. The meeting should be thoroughly planned and administered.
9. Teachers meetings should not as a rule be held after school, when time is short and every one tired.
10. Meetings should not be used for routine administrative purposes.
11. The meeting should end with a summary, plus a look to the future."

5. Institutes

There are many teachers that have little regard for the institute. It has fallen into disrepute not because it will not serve as an effective device of supervision, but because it has not been adapted to the changing needs of the teachers in the teaching profession. It can and will serve as an effective instrument of supervision if the institute

21. Ibid., pp. 419-423.

is organized in accordance with recognized educational principles. Barr and Burton suggest that the following principles be kept in mind in organizing an institute:

1. Recognize clearly the distinctly different functions of an institute.
2. Provide definitely and methodically for these different functions.
3. Obtain speakers of two distinct types (a) inspirational speakers, and (b) those that can present concrete illustrations of pedagogical theory
4. Make definite and intelligent provision for the social side of the meeting.
5. Consult the teaching body in advance about speakers and topics.
6. Get the reactions of the teachers afterwards."

Georgiana Lommen lists the six most commonly accepted functions of the institute as rated by forty state administrators. The list is as follows:

1. To give instruction in methods of teaching
2. To inspire professional idealism
3. To develop esprit de corps
4. To provide local administrative and supervisory forces with opportunity to promote and unify local plans for the educational program of the year
5. To acquaint the local teaching body with the progressive tendencies in elementary education as shown by the scientific investigation of educational leaders
6. To give instruction in subject matter."

The institute can and should serve as an effective supervisory device especially in rural areas where regular and frequent teachers meetings are not practical.

22. Ibid., pp. 410-414.

23. Ibid., p. 417.

6. Handbooks, Bulletins, Circular Letters, and Similar Devices

It is a common practice among both rural and urban supervisors to issue such aids as bulletins, handbooks, and other printed materials in an effort to reach the teachers more effectively. Many supervisory hints that have formerly consumed most of the time in teachers meetings are now being given to the teachers outside of these meetings through the use of bulletins, handbooks, mimeographed sheets, and circular letters.

In rural areas where it is impossible for frequent teachers meetings to be held, and where classroom visits are of necessity few, the circular letter is being used effectively to offset these disadvantages. Through their use the supervisor can keep in a closer touch with the teachers than otherwise would be possible. Circular letters may be classified

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into nine types:

- "1. Inspirational letters
2. Letters to prepare teachers (and others) to profit by certain supervisory agencies
3. Follow-up letters
4. Letters relating to the curriculum
5. Letters to promote specific educational campaigns and to report progress in connection therewith
6. Letters to improve the quality of programs of various kinds
7. Letters including administrative information of special interest to teachers
8. Letters to pupils designed to further their progress along a certain line
9. Routine letters."

24. Edwards, Newton, "Circular Letters as a Supervisory Agency", Elementary School Journal, Vol. 32, p. 645 (May, 1932) (adapted).

7. Course of Study Construction

Educators are using course of study making as a means for improving teachers in service. "When the program is completely devised and thoroughly established, course-of-study making becomes a perpetual means of furthering continuous professional growth. Each cycle of supervisory uses of the course of study includes:

1. The construction or revision of courses of study together with the development of (a) an underlying philosophy, (b) the teaching methods, and (c) committee organization for work;
2. The guidance of the teachers in their study and use of the new course of study, and
3. The critical evaluation of courses of study and recommendations for revisions."

Each cycle offers unlimited possibilities for developing purposeful programs of supervision.

8. Additional Training Through Summer Schools, Extension Courses, Correspondence Courses, and Regular Sessions

Most rural teachers have entered the profession with insufficient training. At the present time there is little excuse for such teachers to remain untrained. Educational facilities are available to those that are at all professionally inclined. Educational institutions furnish opportunities for professional growth through summer schools, extension courses, correspondence courses, and regular sessions.

During the summer educational institutions maintain schools in which professional and subject-matter courses are offered. Universities and teachers colleges maintain extension, and correspondence departments through which teachers can receive professional training. Some universities and teachers colleges hold classes for regular winter work after school hours so that those teachers in the locality wishing to might attend.

Since the chief function of supervision is the improvement of classroom teaching this type of training has its definite place in the educational system. Many of the states require teachers over a given period of time to secure additional credit. Many authorities believe that in the past teachers have been interested more in obtaining credit that in taking courses that would be more benefit to them in their particular teaching job.

Some school systems encourage professional growth through the above sources by providing additional remuneration to those that earn additional credit. It is a practice in some systems to grant leaves of absences after a certain number of years of service either with or without pay to teachers that desire to attend school during the regular session for professional purposes.

9. Research

Harold H. Ableson says that the function of education-

al research is to place "knowing" on a truer and surer
26
basis. He lists values of knowledge gleaned through re-
27
search as:

- "1. Knowledge for its practical value,
2. Knowledge for its own sake, and
3. Knowledge for the thrill of acquiring it."

The teacher that engages in intelligently planned research gains more from the project than any one else concerned. The supervisor that is successful in leading teachers to apply the scientific method to a felt difficulty has gone a long way toward improving instruction; for the improvement of instruction depends upon teacher growth. "The scientific
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method involves:

1. Seeing and formulating problems clearly
2. Gathering data-measurement, observation, experiment
3. Arranging and classifying data-tables, curves, graphs, etc.
4. Formulating hypothesis or conclusions
5. Verifying these conclusions, observation, or experiment
6. Formulating laws, rules, theories."

Teachers as a rule need training and guidance in research work. It is the duty of the supervisor to furnish this training and guidance. The knowledge gained and the growth made by the individual through research undertaken and accomplished are not the only benefits of research as a means of supervision. Teachers should be trained in the art of reading and interpreting other pieces of research, that may apply to the difficulty being faced by the teacher.

26. Ableson, H. H., *The Art of Educational Research*, 1. 1.

27. *Ibid.*, p. 3.

28. Barr and Burton, *op. cit.*, p. 350.

10. Professional Reading

One of the main functions of teacher training institutions is to train the prospective teacher to solve her own problems through the study of professional literature. If the teacher under the supervision of a supervisor has not acquired the habit of turning to professional literature to solve her felt difficulties it is his duty to lead her to establish this habit.

Some feel that professional reading is the most important device of supervision, or teacher growth. Teachers should be led to aid themselves in solving problems that arise in their teaching situation. In every school there should be a professional library of method books, periodicals, and other types of literature for the use and convenience of the teachers. ²⁹ It is the duty of the supervisor to direct the teachers in the use of this library. Many teachers that have not acquired the study habit may be led to do so by careful and intelligent leadership on the part of the supervisor.

11. Visiting Days

If carefully planned, classroom visitation by the teacher is a very effective means for the improvement of teaching. The chief difficulty is the necessity of furnish-

29. Stone, C. R., Supervision of the Elementary School, p. 77.

ing a substitute for the visiting teacher. Unless visiting is definitely planned and provided for it will soon be looked upon as a holiday, or a pleasure trip. The teacher to be visited may be in the same building, in another building of the same system, or in an entirely different system. Both the teacher visited and the teacher visiting must be prepared by the supervisor for the visit. Care must be used in selecting the teacher to be visited, she must know what is expected of her, and what procedures she is especially desired to stress for the benefit of the visiting teacher. The visiting teacher must desire the visit, and be prepared by the supervisor to look for certain definite things in the teaching that she is going to observe.

It is necessary that the supervisor through conferences and observation follow up the visit. Since every visit is planned to meet some specific purpose it is important that the supervisor know to what extent this purpose is accomplished. These follow-up conferences and visits will tend to fix upon the teacher those procedures observed.

D. Evaluation of Supervision

Having set up objectives, and selected, and used devices to achieve these objectives, the supervisor should now attempt to determine the success or failure of the entire

program. Testing the outcomes is not merely for satisfying curiosity, but is a definite and important step in the supervisory program. The measurement of results is not an end in itself; but a means to an end. The purpose for which the program was undertaken was to accomplish certain definite results. The question, Have the objectives been attained? can only be answered by applying objective measures.

1. Value Measured in Terms of Pupil Achievement

The most common and most objective device by which a supervisory program can be measured is the standard achievement test. While it is the most efficient means for measuring pupil growth that is available, it has certain serious limitations. A very small part of the possible outcomes in a learning situation can be measured by standard achievement tests. It is desirable that change produced by a program of supervision in other outcomes, such as attitudes and appreciations be measured. For their measurement other means and devices must be used. Standard achievement tests measure content and performance accurately and well, therefore, they are used to measure the progress of the students during the definite set time of the program.

31. Brueckner, L. J., "Evidence of the Value of Supervision", National Education Association, Department of Superintendence, Eighty Yearbook, p. 108 (1930)

2. Value Measured in Terms of Changes in the Teaching Procedure

Teaching is an activity rather than a static situation. It is a process, not a product. It is a process difficult to control. It is constantly changing, and is subject to the influences of many variables. Chief among these variables are the children with their individual differences, and the teacher, who is striving to create an effective learning situation. There is no entirely objective means of measuring this teaching process or procedure. The most accurate means now available are judgments of individual supervisors. At present there is little agreement among those judging, for each has his own personal idea of what constitutes the most effective methods of instruction. "The differences in the judgments are due in a large part to the lack of definite standards. These standards have the same meaning to all observers of the teaching observed in a particular lesson."³² Certain definite techniques have been used by some to overcome this difficulty.³³ These techniques make it possible:

- "1. To enumerate various items concerning teaching in the classroom in quantitative terms
2. To describe in a meaningful, objective way the quality of teaching either in a room or in a large number of rooms.
3. To make comparison between conditions in a number of places.
4. To measure the effectiveness of the supervisory program in terms of the changes that are produced in the educational situation
5. To set up a program for evaluating teaching procedures and other conditions revealed by a survey of instruction."

32. Ibid., p. 108.

33. Ibid., p. 108.

3. Value Measured in Terms of Changes in the Learning Situation

Changes in the teaching, or learning situation are of those important outcomes of supervision that are hard to measure objectively. "Many of these 'plainly observable' outcomes can be listed in descriptive terms as a basis for guidance in evaluating supervision. Rough estimates of gain or loss can be made."³⁴

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Lelah Mae Crabbs makes the following statement, "Any measurement program ought to justify itself in part by showing educational gains on the part of the staff in terms of such matters as:

1. Keener interest in current educational problems.
2. Better understanding of the tools of their profession, such as methods, curriculums, and available diagnostic and remedial measures.
3. Greater focusing of attention on balance of emphasis in the various phases of instruction.
4. A more scientific attitude on the part of the staff toward their profession, as shown by a desire and willingness to cooperate pleasantly in research and experiment being carried on for the purpose of improvement in education in general."

4. Value Measured in Terms of Judgments of Individuals

A large body of information is available concerning the judgments of individuals as to the value of supervision in general, and particular supervisory programs as well.

34. Ibid., p. 118.

35. Crabbs, Lelah Mae, Measuring Efficiency in Supervision Teaching, p. 20.

Questionnaires have been submitted to administrators, supervisors, and teachers asking them to evaluate supervision in general, or some certain program in particular. Rating charts have been devised by which superintendents may attempt to evaluate the supervision in their school systems.

By the use of charts, questionnaires and other forms of inquiry blanks, and by carefully compiling the judgments thus obtained the value of these "observable outcomes" can quite accurately be determined.

CHAPTER III

RURAL SUPERVISION IN ARIZONA

This chapter deals with present supervisory practices in the rural schools of Arizona as revealed by interviews with 63 rural teachers in 39 different schools in 6 Arizona counties.

A. Derivation of Objectives

As indicated on page 9 a supervisory program provides for (1) objectives, (2) means of achieving objectives, and (3) means of checking results. These objectives should grow out of the actual teaching, learning situation. By objectives for a supervisory program is meant those goals that are set up for which the program is planned and undertaken. To discover what these objectives shall be certain devices are used to reveal pupil and teacher needs. A definite number of these needs are selected and stated in the form of objectives.

A careful study of Table III on page 32 will show present practices in Arizona in regards to setting up objectives for supervisory programs for rural schools.

Table III. Present practices in the rural schools of Arizona in regard to setting up objectives in supervision. (The data represent answers of 63 rural teachers in personal interviews. Data were collected during April and May of 1934)

	Number of teachers reporting	Per cent of those reporting		Per cent of Total
		Yes	No	
1. Have intelligence tests been given to the students of your room?.....	63	10	53	15.9
2. Are the scores on these tests on file in your school building?.....	10	8	2	80.0
3. Are the scores on these tests on file in the county school superintendent's office?.....	10	3	7	30.0
4. Were achievement tests administered to the pupils of your room during the fall of this school year?.....	63	38	25	60.3
5. Are the scores on these tests on file in your building?.....	38	33	5	86.8
6. Are the scores on these tests on file in the county school superintendent's office?.....	38	18	20	47.6
7. Were the results on these tests used in any way in planning your school work for this year?.....	38	23	15	60.5
8. As far as you know were these tests used in setting up objectives	38	8	30	21.1

* Of the 10 teachers reporting intelligence tests 6 reported that the tests were given by county officers, and 2 reported that they had administered them themselves.
 * Thirteen of the 38 teachers reporting achievement tests stated that the tests had been given by county officers, 8 by state officers, and 7 by the teachers themselves.
 * Of the eight reporting the setting up of objectives for a supervisory program 6 reported that the county officers had set up objectives, and 2 that the principal had done so.

* In the last column of this table those not answering question are considered as answering no.

1. Intelligence Tests

a. Tests Administered

In answering the question, "Have intelligence tests been given to the students in your room?" 10, or 15.9 per cent, of the 63 teachers replying said that intelligence tests were given; 53, or 84.1 per cent, answered that tests were not given. While intelligence tests are used by most supervisors in setting up objectives some authorities doubt the need of these tests since they feel that group intelligence tests are to a great extent achievement tests. Intelligence tests are usually not given more than two or three times to the same child throughout the grades; therefore, they are seldom used in making a survey prior to establishing a program of supervision. While their results can be used efficiently in planning supervision, they are not as important as achievement tests.

b. Tests Filed

The question, "Are the scores on these tests on file in your building?" was asked. Of the 10 teachers answering the question 8, or 80 per cent, answered yes, and 2, or 20, per cent no. Of the 63 teachers only 8, or 12.7 per cent, had intelligence test scores on file in their buildings, while 55, or 87.3 per cent, did not.

The question, "Are the scores on these tests on file in the county school superintendent's office?" was responded

to by 10 teachers. Of these 10 teachers 3, or 30 per cent, answered yes, and 7, or 70 per cent, answered no. Out of the 63 cases only 3, or 4.8 per cent, reported that intelligence test scores were on file in the county office while 60, or 95.2 per cent, reported that no scores were on file in the county office. Intelligence tests are of little value unless used in planning the teachers work, or in planning supervision. Test scores to be of any use to the teacher in planning her work must be on file in the school building where she can study them and discover pupil needs.

c. Person Giving Tests

Of the 10 teachers answering the question, "By whom were the tests given?" 8 reported that the tests were given by county officers, and 2 that they had given the tests themselves. Current practice indicates that teachers should be trained to give these tests themselves. The supervisor is responsible for the training of the teachers in the giving and interpreting tests. Teachers trained in giving and interpreting the results of intelligence tests comprehend more fully the use that can be made of the results.

2. Achievement Tests

a. Tests Administered

To the question, "Were achievement tests administered to the pupils of your room during the fall of this school year?" 38, or 60.3 per cent, of the 63 teachers responded

that they were given, and 25, or 39.7 per cent, that they were not.

Achievement tests are recognized as one of the most important devices for discovering objectives for supervisory programs.

b. Tests Filed

Of the 38 answering the question, "Are the scores on these tests on file in your building?" 33, or 86.8 per cent, answered yes and 5, or 13.2 per cent, no. Achievement test scores were reported on file in the school building by only 52.4 per cent of the 63 teachers, while 47.6 per cent reported that none were on file in the building.

"Are the results on these tests on file in the county school superintendent's office?" was responded to by the 38 teachers in whose rooms achievement tests were given. Of the 38 teachers 18, or 47.4 per cent, answered yes, and 20, or 52.6 per cent, no. This means that in only 23.6 per cent of the 63 cases were scores on achievement tests on file in the county office, while in 71.4 per cent of the cases there were none.

Achievement tests are recognized as necessary in planning the teacher's work, and in setting up objectives for supervisory programs. If these tests are to serve these purposes their results must be on file both in the school building and in the county office.

c. Person Giving Tests

The question, "By whom were the tests given?" was answered by 38 teachers. Of these 38 teachers 13 stated that these achievement tests were given by county officers, 8 by the state officers, and 7 by the teachers themselves.

Current theory seems to indicate that achievement tests should be given by the teachers themselves. If teachers are trained in the giving and using the achievement tests they can interpret and use the results more intelligently. The responsibility of seeing to it that the teachers have this training rests upon the supervisor.

3. Results

a. Work Planned from Results

In response to the question, "Were the results on these tests used in any way in planning your school work for this year?" 23, or 60.5 per cent, answered yes, and 15, or 39.5 per cent, no. Of the 63 teachers only 36.5 per cent of them used achievement scores in planning their school work, while 63.5 per cent did not use them.

Not only do supervisors recognize the need for achievement tests in modern education, but also maintain that they are not to be given to satisfy curiosity, but for definite educational purposes. The chief reason for giving achievement tests is to discover pupil needs. Having discovered the needs, provisions should be made to meet these needs.

b. Setting up Objectives for Program

The teachers were asked, "As far as you know were these tests used in setting up objectives for a supervisory program?" Of the 38 teachers responding 8, or 21.1 per cent, answered yes, and 30, or 78.9 per cent, no. Only in 12.7 per cent of the 63 cases were results on achievement tests used in setting up objectives for a supervisory program, while in 87.3 per cent of the cases they were not used.

Supervision to be effective must have definite objectives, and these objectives should be known and understood by the teachers as well as by the supervisors.

The question, "By whom were objectives set up?" was answered by only 8 teachers; 6 of whom reported that county officers had set up objectives.

Setting up of objectives for rural supervision should be a cooperative undertaking between the supervisors and the teachers.

4. Summary

Practice in the rural schools of Arizona falls far short of current educational theory in regards to setting up objectives for programs of supervision. Out of 63 teachers only 12.7 per cent reported that objectives for a supervisory program had been set up. Supervision with objectives or goals has neither a point of departure nor a destination. If supervisory officers had set up objectives very few teachers

were conscious of the fact. Since the prime purpose of supervision is the improvement of classroom instruction, little progress can be made unless the teachers themselves are conscious of the objectives sought.

B. Means of Achieving Objectives

Having set up objectives it becomes necessary that the means through which these objectives are to be achieved be selected. By the means of achieving objectives is meant those supervisory devices by which the goals of the program may be achieved.

A careful study of Tables IV to VIII will give a summary of present supervisory practices in the rural schools of Arizona in regards to achieving objectives. Table IV on page 39 is referred to unless otherwise indicated.

Table IV. Present practices in the rural schools of Arizona in regard to achievement of objectives in supervision. The data represent answers received from 63 rural teachers in personal interviews

Questions	Number of teachers re-ported	Per cent of those reporting		total number of blanks
		Yes	No	
1. Were you visited by any state or county supervisory officers?	63	61	2	96.8
2. While observing classroom instruction did the county officers:				
A. Take notes?	57	2	55	3.5
B. Teach a class for you?	57	1	56	1.8
C. Enter into any class discussions?	57	5	52	8.8
3. Did the county officers give you any constructive criticism?	24	12	12	50.0
4. Did the state officers while observing classroom instruction:				
A. Take notes?	30	1	29	3.3
B. Teach a class for you?	30	0	30	0.0
C. Enter into any class discussions?	30	0	30	0.0
5. Did state officers give you any constructive criticism?	3	1	2	33.3
6. Did you receive any supervisory material from state or county officers?	63	60	3	95.2
7. Does your county school superintendent keep on hand a professional library from which you are encouraged to get books and periodicals?	63	20	43	31.7
8. Have teachers meetings been held in your county?	63	53	10	84.2
9. Have county officers and teachers constructed a course of study in the last five years?	63	10	53	15.8
10. Did you attend the state institute?	63	28	35	44.4
11. Have any demonstration lessons been provided for you by the county officers?	63	0	63	0.0

* Of the 60 receiving supervisory materials all 60 received supervisory material from the state.

This material consisted of the State Course of Study

* Fourteen teachers received supervisory material from county officers. These same teachers also received the State Course of Study.

* The teachers meetings were rated as supervisory entirely by 4, in part by 47, and not at all by 2.

* No county institutes were held this year.

* Since there was no demonstration teaching the question, "If so, which of the following? (A) Demonstration before 1 teacher, (B) Demonstration before a group of teachers?" has been omitted.

Table V. Supervisory visits of state and county officers to 63 rural teachers in Arizona

Number of Visits (1)	County officers f (2)	Product (1)x(2) (3)	State officers f (4)	Product (1)x(4) (5)	Total of state and county officers f (6)	Product (1)x(6) (7)
15	-	-	-	-	1	15
14	-	-	-	-	-	-
13	-	-	-	-	-	-
12	1	12	-	-	-	-
11	-	-	-	-	-	-
10	-	-	-	-	-	-
9	-	-	-	-	-	-
8	1	8	-	-	5	40
7	4	28	-	-	1	7
6	2	12	-	-	3	18
5	3	15	-	-	1	5
4	4	16	-	-	5	20
3	9	27	1	3	14	42
2	13	26	1	2	18	36
1	20	20	28	28	13	13
0	6	0	33	0	2	0
Totals	(N)63	163	(N)63	33	(N)63	196

County, Range 0 to 12; Mean 2.6

State, Range 0 to 3; Mean .52

State and County combined, Range 0 to 15; Mean 3.07

1. Classroom Visiting

In response to the question, "Were you visited by any state or county supervisory officers during this year?" 61, or 96.8 per cent, of the 63 teachers answered yes, and 2, or 3.2 per cent, answered no.

The question, "If so, how many times by county officers? How many times by state officers?" are summarized in Table V on page 40. Of the 63 teachers interviewed 57 were visited by county officers, and 6 were not. The total number of visits from county officers was 164; range 0 to 12; mean number of visits 2.6 per teacher. Of the 63 teachers 30 were visited by state officers. The total number of visits from state officers was 33; range 0 to 3; mean number of visits .52 per teacher. The total number of combined visits from state and county officers was 196; range 0 to 15; mean number of visits 3.7 per teacher. There were 2 teachers that were visited neither by state nor county officers.

There is no general agreement among authorities as to the number of visits that should be made to teachers in the classroom. It is generally accepted, however, that visits to rural teachers can not be as frequent as in urban communities. This does not mean that rural teachers do not need as much supervision as do urban teachers, but that other devices, because of the impossibility of frequent visits, must at times be substituted for visitation.

2. Technique of Observation

In response to the question, "While observing classroom instruction did the county officers: (A) Take notes? (B) Teach a class for you? (C) Enter into class discussions?" 2, or 3.5 per cent, of the 57 reporting replied that notes were taken; 1, or 1.8 per cent, replied that classes were taught by county officers; 5, or 8.8 per cent, replied that county officers entered into the class discussions. Of the 57 teachers 55, or 96.5 per cent, said notes were not taken; 56, or 98.2 per cent, that classes were not taught for them; 52, or 91.2 per cent, that county officers did not enter into class discussions. Of the 63 teachers interviewed only 2, or 3.2 per cent, received the services of the county officers in taking notes; 1, or 1.6 per cent, in having classes taught; 5, or 7.9 per cent, in having the county officers enter into class discussions. Of the 63 teachers 96.8 per cent received no service from county officers in the form of note taking; 98.4 per cent no service in form of classes taught; 92.1 per cent no service in form of class discussions.

The question, "Did the state officers while observing classroom instruction: (A) Take notes? (B) Teach a class for you? (C) Enter into any class discussions?" was answered by the 30 teachers visited by state officers. Of the 30 teachers 1, or 3.3 per cent, answered yes, 29, or 96.7 per cent, no in reference to note taking; 0, or 0 per cent, answered

yes, and 30, or 100 per cent, no in regard to classes taught by state officers; 0, or 0 per cent, answered yes, and 30, or 100 per cent, no in regard to entering into class discussions. Of the 63 teachers interviewed 1, or 1.6 per cent; 0, or 0 per cent; 0, or 0 per cent, answered that they had received service from the state officers in the form of note taking, classes taught, and class discussions respectively, while 98.4 per cent, 100 per cent, and 100 per cent respectively received no services.

Supervisory authorities insist that some form of notes be taken on the teaching observed. Most of the authorities believe that notes should be taken during observation. Current theory indicates that if the supervisor is going to teach a class for a teacher arrangements should be made beforehand with the teacher, otherwise the class should seldom if ever be taken over by a supervisor. Care should be used by a supervisor in entering into classroom discussions. Many feel that more harm than good is done by supervisors entering into the class discussions.

3. Constructive Criticism

The question, "Did the county school superintendent or assistants give you any constructive criticism?" was answered by 24 teachers. Of these 24 teachers 12, or 50 per cent, answered yes; 12, or 50 per cent, answered no. Of the 63 teachers interviewed 12, or 19.1 per cent, received

supervisory service in the form of constructive criticism, while 80.9 per cent did not.

Of the 3 teachers answering the question, "Did state officers give you any constructive criticism?" 1, or 33.3 per cent, answered yes and 2, or 66.6 per cent, no. Of the 63 teachers 1.6 per cent received constructive criticism, and 98.4 per cent did not.

The purpose of observation is to discover the needs of the teacher. Constructive criticism is the most important means of meeting these needs. Without constructive criticism classroom observation accomplishes little, for it becomes mere inspection.

4. Supervisory Materials

In response to the question, "Have you received in the form of bulletins, or circular letters any materials that might be classed as supervisory material from county or state officers?" 60, or 95.2 per cent, of the 63 teachers answered yes, and 3, or 4.8 per cent, no.

In answer to the question, "If so, from whom?" all 60 of the teachers receiving supervisory materials said that they had received material from the state, and 14 that they had received material from county officers. The 14 also received supervisory material from the state. The only supervisory material received from the state was the State Course of Study.

Present theory seems to indicate that in rural supervision the most effective devices that can be used are bulletins and circular letters.

5. Library

The question, "Does your county school superintendent keep on hand a professional library from which you are encouraged to get books and magazines for professional purposes?" was answered by all 63 of the teachers interviewed. Of the 63 teachers 20, or 31.7 per cent, answered yes; 43, or 68.3 per cent, no.

A professional library for the use of rural teachers may not be as effective a device as a professional library for urban teachers, because of the difficulty of getting the books and magazines to the teachers; but it is considered by most rural supervisors as an important means for the improvement of classroom teaching through teacher growth.

6. Teachers Meetings

Of the 63 teachers answering the question, "Has your county school superintendent held teachers meetings in your district or county this year?" 53, or 84.2 per cent, answered yes and 10, or 15.8 per cent, no.

In response to the question, "Were these meetings supervisory?" 4 of the 53 teachers answering the question rated the meetings as supervisory entirely, 47 as in part, and 2 as not at all.

The teachers meeting is considered as an effective device of supervision. If carefully and intelligently planned and administered it will promote teacher growth.

7. County Course of Study

The question, "Has your county school superintendent with the aid of the teachers in your county constructed a course of study within the last five years?" was responded to by all 63 teachers. Of the 63 teachers 10, or 15.8 per cent, answered yes, and 53, or 84.2 per cent, answered no.

While course of study construction is an effective device of supervision its use is not always necessary where effective state courses of study are in existence. It is, however, necessary that the county supervisors aid the teachers in interpreting and adjusting the course of study to the needs of their particular counties and local districts.

8. State Institute

In answer to the question, "Did you attend a state or county institute this year?" 28, or 44.4 per cent, of the 63 teachers answered yes, and 35, or 55.6 per cent, answered no.

The question, "If so, which?" was responded to by 28 teachers, and since there were no county institutes in the state this year all 28 attended the State Institute. The institute has fallen into disrepute among many teachers, but educators believe that if institutes are planned and administ-

ered in accordance with modern educational practice and theory they can be made to serve a very definite purpose in supervision.

9. Demonstration Lessons

Since the question, "Have any demonstration lessons been provided for you by the county school superintendent?" was answered no by all 63 teachers, the following question, "If so, which of the following: (A) Demonstration before one teacher only, (B) Demonstration before a group of teachers?" need not be considered.

Supervisors consider demonstration teaching to be the most effective way of conveying to the teacher their idea of what constitutes good teaching. It is an efficient means of introducing the teachers to more effective teaching procedures and techniques, and is used by many supervisors as such.

10. Additional Semester Hours Credit

The response to the question, "How many semester hours credit have you earned in the last five years in summer school, in regular session, by extension, by correspondence?" is summarized in Tables VI and VII. Table VI on page 48 shows that the total number of semester hours earned range from 0 to 66; the mean is 13.92. Table VII on pages 49 and 50 shows that of these 63 teachers 15 earned no additional

Table VI. The total number of semester hours earned by each of sixty-three teachers through summer school, correspondence courses, extension courses, and regular session. Academic credit earned before teaching is not recorded.

Semester hours	Frequency	Deviation	fd.
(1)	(2)	(3)	(4)
65-69	1	11	11
60-64	1	10	10
55-59	0	9	0
50-54	1	8	8
45-49	1	7	7
40-44	0	6	0
35-39	2	5	10
30-34	2	4	8
25-29	0	3	0
20-24	2	2	4
15-19	6	1	6
10-14	17	0	0
5-9	14	-1	-14
0-4	16	-2	-32
Total	(N)63		18

Range 0 to 66 semester hours

Mean 13.92 semester hours

Table VII. Semester hours credit earned in the last five years by sixty-three teachers, by summer school, extension courses, correspondence courses, and regular session. Academic credit earned before teaching is not recorded.

Teachers:	Semester hours credit earned by teachers					:
: by	: Summer:	:	:	:	: Regular :	:
: numbers:	: school:	: Extension :	: Correspondence:	: Session :	: Total :	:
: 1.	: 24	: -	:	:	: -	: 24
: 2.	: -	: -	:	:	: -	: -
: 3.	: 5	: -	:	:	: 3	: 8
: 4.	: -	: -	:	:	: -	: -
: 5.	: 12	: -	:	:	: -	: 12
: 6.	: -	: -	:	:	: -	: -
: 7.	: 13	: -	:	: 6	: 29	: 48
: 8.	: 5	: -	:	:	: -	: 5
: 9.	: -	: -	:	:	: -	: -
: 10.	: 19	: -	:	:	: -	: 19
: 11.	: 6	: -	:	:	: -	: 6
: 12.	: -	: -	:	: 10	: -	: 10
: 13.	: -	: -	:	: 5	: -	: 5
: 14.	: -	: -	:	:	: 3	: 3
: 15.	: 15	: -	:	: 3	: -	: 18
: 16.	: -	: -	:	: 18	: -	: 18
: 17.	: 8	: -	:	:	: 10	: 18
: 18.	: -	: -	:	:	: -	: -
: 19.	: 12	: -	:	:	: -	: 12
: 20.	: 5	: -	:	:	: -	: 5
: 21.	: -	: -	:	:	: -	: -
: 22.	: -	: -	:	:	: -	: -
: 23.	: 36	: -	:	: 3	: -	: 39
: 24.	: 12	: -	:	:	: -	: 12
: 25.	: -	: -	:	:	: -	: -
: 26.	: 12	: -	:	:	: -	: 12
: 27.	: 18	: -	:	:	: -	: 18
: 28.	: -	: -	:	:	: -	: -
: 29.	: 6	: -	:	: 6	: -	: 12
: 30.	: 12	: -	:	:	: -	: 12
: 31.	: 6	: -	:	:	: -	: 6
: 32.	: 14	: -	:	:	: -	: 14
: 33.	: 9	: -	:	:	: -	: 9
: 34.	: 6	: -	:	:	: -	: 6
: 35.	: 5	: -	:	: 2	: -	: 7
: 36.	: -	: -	:	:	: -	: -
: 37.	: -	: -	:	:	: -	: -
: 38.	: 6	: -	:	:	: -	: 6
: 39.	: 14	: -	:	:	: -	: 14
: 40.	: 5	: -	:	:	: -	: 5
: 41.	: 11	: -	:	:	: -	: 11
: 42.	: 10	: -	:	:	: -	: 10

Table VII. Continued

Teachers:		Semester hours credit earned by teachers:				
: by	: Summer:	:	:	: Regular	:	
: number	: school:	: Extension	: Correspondence:	: session	: Total:	
: 43.	: 60	: -	:	: 6	: -	: 66
: 44.	: 8	: 2	:	: -	: 24	: 34
: 45.	: 10	: -	:	: -	: -	: 10
: 46.	: 6	: -	:	: -	: -	: 6
: 47.	: 18	: -	:	: -	: 32	: 50
: 48.	: 12	: -	:	: -	: -	: 12
: 49.	: -	: -	:	: -	: -	: -
: 50.	: -	: -	:	: -	: -	: -
: 51.	: 18	: -	:	: 18	: -	: 36
: 52.	: 32	: -	:	: -	: -	: 32
: 53.	: 12	: -	:	: -	: -	: 12
: 54.	: 44	: -	:	: -	: 16	: 60
: 55.	: -	: -	:	: -	: -	: -
: 56.	: 15	: -	:	: -	: -	: 15
: 57.	: -	: -	:	: -	: -	: -
: 58.	: -	: -	:	: 8	: -	: 8
: 59.	: 17	: -	:	: -	: -	: 17
: 60.	: 12	: -	:	: -	: -	: 12
: 61.	: 12	: -	:	: -	: -	: 12
: 62.	: 5	: -	:	: -	: -	: 5
: 63.	: 14	: -	:	: -	: -	: 14

* Fifteen teachers received no semester hours credit in the last five years.

semester hours credit during the last five years.

Some states require teachers in service to earn additional credit before their certificates will be renewed. The Arizona law requires teachers not holding life certificates to earn 5 semester hours credit every four years in order to get their certificates renewed. Authorities agree that the public has the right to expect continuous teacher growth through additional training. In rural areas where a large portion of the teachers have had insufficient preparation emphasis should be placed on additional training as a supervisory device. The fact that the State Board of Education has granted two years extension on certificates accounts for some of the 15 reporting no additional credits earned.

11. Conferences

The questions pertaining to conferences are summarized in Table VIII on page 52. The question, "Did the county school superintendent or assistants hold conferences with you after classroom observation?" was answered by 57 teachers. Of the 57 teachers 2, or 3.5 per cent, said conferences were held always; 22, or 38.6 per cent, occasionally; 33, or 57.8 per cent, never. Of the total 63 teachers 3.2 per cent, always received the services of county officers in regards to conferences; 34.9 per cent occasionally, and 61.9 per cent never.

Thirty teachers responded to the question, "Did the

Table VIII. Present practices in the rural schools of Arizona in reference to achieving objectives in supervision. The data represent the answers of 63 rural teachers to questions asked them in personal interviews.

Questions	Number of teachers	Per cent of those reporting		Per cent of total	
		Al-ways	Occa-sion-ly	Al-ways	Occa-sion-ly
1. Did the county officers hold conferences after classroom observation?	57	2	22	3.5	34.9
2. Did the state officers hold conferences after classroom observation?	30	0	3	0.0	10.0
3. Did the county officers discuss the lessons observed with you?	24	0	13	0.0	54.2
4. Did the state officers discuss the lessons observed with you?	3	2	1	66.7	33.3

* All three of the teachers with whom state officers held conferences received the same service from county officers.
 * Two of the three teachers with whom state officers discussed lessons observed received the same service from county officers.

state officers hold conferences with you after observation?" Of these 30 teachers 0, or 0 per cent, said conferences were held always, 3, or 10 per cent, occasionally, and 27, or 90 per cent never. Of the 63 teachers 0 per cent always received the services of state officers in regards to conferences, 4.8 per cent occasionally, and 95.2 per cent never.

Of the 24 teachers answering the question, "Did county officers discuss the lessons observed with you?" 0, or 0 per cent, said county officers always discussed lessons observed, 13, or 54.2 per cent said lessons observed were discussed occasionally, and 11, or 45.8 per cent, that lessons were never discussed. Of the 63 teachers none always received the aid of the county officers through discussions of the lessons observed, and only 20.6 per cent received occasional aid; but 79.4 per cent never received aid from the county officers through a discussion of the lessons observed.

Only 3 answered the question, "Did state officers discuss the lessons observed with you?" Of these 3 teachers 2, or 66.6 per cent, said that state officers always discussed the lessons observed, 1, or 33.3 per cent, that lessons were discussed occasionally, and 0, or 0 per cent, that the lessons were never discussed. Of the 63 teachers only 3.2 per cent always received the aid of the state officers through discussions of lessons observed, and 1.6 per cent received this service occasionally, but 95.4 per cent never received any aid from state officers through this source.

Current theory indicates that every lesson observed calls for a conference, and every conference after observation calls for a discussion on the lesson observed. Observation without a conference is mere inspection, and a conference in which the lesson observed is not discussed has little if any supervisory value. Under the present organization teachers should look to the county officers for these services, rather than to the state.

12. Summary

Judged in the light of current educational theory supervisory practice in Arizona in reference to means of achieving objectives falls far short of what it should. Some of the devices were used effectively, but most of them were not used to any great extent. As previously indicated the county superintendent and his assistants should be held responsible for rural supervision in Arizona.

The mean number of visits received by each teacher from county officers was only 2.6. While this number of visits is held by supervisors to be far too few, the chief complaint lies in the quality and not quantity. Little effort was made to use those valuable devices and activities of supervision connected with and growing out of visitation.

Sixty out of 65 teachers received supervisory materials from the state in the form of circular letters and bulletins, but since only 14 teachers were conscious of having received

supervisory material from county officers, it appears that those really responsible for rural supervision are failing to employ a device especially adapted to rural supervision.

County superintendents may have had on hand a professional library, but 68.3 per cent of the rural teachers interviewed were not aware of the fact. The supervisory officers have made considerable use of the teachers meetings as a supervisory device. The number of meetings attended by each teacher is not given, but 53 teachers reported that they had attended one or more such meetings. Fifty-one of these teachers rated these meetings as supervisory in part or entirely. This would indicate that in the use of this particular device practice in Arizona was approximating theory. Of the teachers interviewed 44.4 per cent attended an institute. Since there were no county institutes this year the percentage can be considered in a favorable light. The fact that there were no county institutes is to be regretted since they are recognized as an effective supervisory device.

Course of study construction was used but slightly, however, under the present organization educators are more interested in the interpreting of the state course of study and in adapting it to local needs.

Rural supervisors in Arizona have sadly neglected the use of demonstration lessons as a means of supervision. Not one of the 63 teachers was provided with an opportunity

those in some other states.

The eleventh Biennial Report of the State Superintendent of Public Instruction, for the years 1930-32, gives the requirements for graduation from Arizona high schools as follows:

"The minimum requirements for high school graduation decided upon by the State Board of Education, July 1, 1927, are still in effect. These requirements are 15 units, which must include:

3 years of English
2 years of Social Science 1
1 year of Laboratory Science."

It is to be noted that these requirements do not mention any foreign language. This same report, however, continues:

"The minimum high school graduation requirements, as above, are not sufficient to admit students to Freshman standing in the University of Arizona. The admission units required by the University are as follows:

Summary of Admission Units.

The 15 units offered for admission must include the following requirements common to all colleges of the University...:

English Composition and Literature.... 3 units.
Language (one subject) 2 units."

Thus we have a situation wherein there is no language requirement for graduation from the high school, but there is one for admission to the state university. Since a large percentage of the high school graduates throughout Arizona go to the university, it practically means that all students expecting to attend this institution must take two years in some foreign language in their high school course.

In a study made throughout the United States, in 1927-28, on the requirements for graduation from high school,

1. Eleventh Biennial Report of the State Supt. Pub. Instruct'n for years 1930-32, pp. 38-41.

Table IX. Measurement of Results of Supervision in the rural schools of Arizona. Data represent answers of 63 rural teachers to the questions listed in the table.

Questions	Number of teachers reporting:		Per cent:	
	Yes	No	Yes	No
1. Has a follow-up standard achievement test been administered to the pupils in your room this year?..	63	6	57	90.5
2. Has the county school superintendent attempted to measure the change in your teaching procedure during the year?.....	63	4	59	93.7
3. Has the county school superintendent in any way attempted to measure the change in the teaching or learning situation in your school or community?.....	63	3	60	95.2

* Five teachers reported that standard achievement tests were given in all basic subjects, and one that a follow-up test was given in arithmetic.

* In all 39 schools visited spelling and handwriting tests, which were constructed by the state department, were given to students in the third to the eighth grade inclusive. In schools having an eighth grade, an eighth grade survey test constructed under the direction of the state department was given.

* Four teachers reported that county officers had measured change in teaching procedure during the year by means of tests and observation.

* Three teachers reported that county officers attempted to measure change in teaching or learning situation in school and community by observation.

1. Follow-up Tests

In answering the question, "Has a follow-up standard achievement test been administered to the pupils in your room this year?" 6, or 9.5 per cent, of the 63 teachers said yes, and 57, or 90.5 per cent, no.

Of the 6 teachers answering the question, "What subjects did the test cover?" 5 reported that the tests covered all the basic subjects, and 1 that the test covered only arithmetic.

Since the standard achievement test is the most objective means of measuring value of the supervisory program it should be applied without fail as a check upon the outcomes of the program. The chief aim of supervision is to improve classroom teaching. This improvement can most objectively be determined through the measurement of pupil achievement by the use of standard achievement tests. These tests must cover the subject, or subjects under consideration in the supervisory program.

2. Change in Teaching Procedure

The question, "Has the county school superintendent attempted to measure the change in the teaching or learning situation in your school or community?" was asked. Only 4, or 6.3 per cent, of the 63 teachers answered yes, while 59, or 93.7 per cent, answered no.

In response to the question, "If so, how?" all 4 of the teachers answering the question reported that county officers had measured change in teaching procedure during the

year by means of tests and observation.

The improvement of teaching comes about chiefly through changes in teaching procedure. These changes should be noted by the supervisors, and the supervisors should make the teachers aware of these changes.

3. Changes in the Learning Situation

The question, "Has the county school superintendent in any way attempted to measure the change in the teaching or learning situation in your school or community?" was responded to by all 63 teachers. Of the 63 teachers 3, or 4.8 per cent, answered yes, and 60, or 95.2 per cent, no.

Of the 3 teachers answering the question, "If so, how?" all 3 answered that county officers had attempted to measure the change in the teaching or learning situation in the school and community by observation.

Changes in the learning or teaching situation are among those important outcomes of supervision that are hard to measure objectively. Rough estimates should be made of the gain or loss. Teachers should be made aware of these gains or losses.

4. Summary

Since only 6 teachers reported attempts to measure pupil progress in achievement, 4 attempts to measure change in teaching procedure, and 3 attempts to measure change in the teaching or learning situation, measurements of the value of

supervisory programs in Arizona are almost non-existent.

CHAPTER IV

A PROGRAM OF SUPERVISION FOR THE RURAL SCHOOLS IN ARIZONA

A. Difficulties of Rural Supervision in Arizona

The functions of rural supervision are the same as those of urban supervision. ³⁷ It is apparent, however, that certain situations existing in rural areas make it necessary to modify any acceptable organized plan of urban supervision to meet rural conditions.

As already indicated in this study rural supervision has been sadly neglected. While supervision in the rural schools of Arizona may not approximate supervisory theory until the educational system is reorganized along more modern lines, it can be greatly improved under the present organization. The purpose of this study is not to recommend reorganization of the educational system, but to recommend a program for the improvement of supervision under the existing organization. Under the present system the county is the unit of rural supervision. This fact places the responsibility for rural supervision upon the county school superintendent.

There are certain factors that make supervision of the rural schools in the state difficult. Among these

37. Anderson and Simpson, The Supervision of Rural Schools, p. 29.

factors are:

1. The supervisor as a factor
 - a. The lack of sufficient training
 - b. The short tenure
 - c. The lack of sufficient help
 - d. The lack of authority over local schools
2. The rural community as a factor
 - a. The distance between schools
 - b. The bad road conditions
 - c. The local school board members
 1. Their power to employ and dismiss teachers
 2. Their power to determine the general policy of the local school
3. The rural school as a factor
 - a. The number of schools to be supervised
 - b. The types of schools to be supervised
 - c. The curriculum of the rural school
 - d. The equipment of the rural school
 - e. The supplies for the rural school
 - f. The rural school building
4. The rural teacher as a factor
 - a. The number of teachers to be supervised
 - b. The large number of new teachers
 - c. The rapid shifting of rural teachers from school to school

To many of those charged with the duty of supervising the

rural schools these difficulties have seemed insurmountable. However, educators are agreed that these difficulties are by no means insuperable. They maintain that a carefully planned program of supervision will overcome these obstacles.

B. Objectives for a Plan of Supervision in the Rural Schools of Arizona

As indicated on page 9 any good plan of supervision will provide for: (1) a set of clearly stated, defined objectives; (2) a clear-cut outline of the means, devices, and procedures to be utilized in the attainment of these ends; and (3) a clear-cut outline of the criteria, checks, or tests to be applied to the results of supervision, in order to determine the success or failure of the program.

1. Derivation of Objectives (The objectives should be based upon the discovered needs in the actual situation.)

a. Discovery of the needs (The needs should be discovered by exhaustive analyses of the situation.)

1. A survey stressing the pupil

a. A survey by means of standard tests

b. An analysis of the activities engaged in by the pupils. This may be done by recording the number of times items are observed, or by describing conditions, or by making comparisons

c. Consideration of psychological factors, such as attention, errors made, etc.

e. A study of the attitudes of pupils by observ-

- ing their behavior in significant situations
- f. The evaluation of various preceding analyses
- 2. A survey stressing the teacher
 - a. Analysis of the activities of the teacher
 - b. A study of the difficulties met by teachers
 - c. Analysis of errors and procedures
 - d. A summary of judgments on the skill of teachers
 - e. Evaluation of levels of teaching skill judged in terms of any of several criteria
 - f. Trade tests
- 3. A survey stressing various elements in lessons
 - a. A study of the time allotted to subjects or phases of learning
 - b. An analysis of the nature and order of activities within the lesson
 - c. A study of the objectives of lessons
 - d. A study to determine and evaluate levels of teaching
 - 1. The use of check lists and observation blanks
 - 2. A study and description of types of lessons
 - e. An analysis of materials used in lessons
 - f. An analysis of instructional conditions surrounding the teaching situation
- 4. An analysis of the records on file in the school systems and in the county school superintendent's

office

- a. Age grade tables
 - b. Test scores
 - c. Health records of pupils
 - d. Transiency records
5. A study of the records of the teaching staff, their training, experience, personal records, etc.
 6. A survey of the social and economic background of the pupils
 7. A survey of new movements in education to determine whether any of them should be introduced into the local situation

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2. Selection of Objectives

- a. Construction of a list of all the needs, problems, difficulties, defects, or new departures which may be made into definite objectives
- b. Selection from this list of a few problems, needs, difficulties, defects, or new departures which are stated definitely as objectives

(Samples of objectives for both specific and general programs of supervision are given in Appendix C. See also Eighth Yearbook of The Department of Superintendence of the National Education Association, pp. 89-97.)

38. Burton, W. H., "The Planning of Supervisory Programs", The Department of Superintendence of the National Education Association, pp. 88-89 (1930).

C. Means of Achieving Objectives in a Program of Supervision
for the Rural Schools of Arizona

1. Teachers Meetings. Teachers meetings should be extensively used in achieving objectives of supervision. They should be held in localities accessible to teachers. Large counties should be divided into zones for the purpose of teachers meetings: Teachers meetings provide opportunity as outlined below:
 - a. Teachers meetings in which demonstration teaching is observed
 1. Opportunity for intelligent discussion of basic theories and psychology involved in lessons observed
 2. Concrete illustrations of theories presented in other teachers meetings, bulletins, and mimeographed sheets
 - b. Teachers meetings held to discuss classification and promotion of pupils
 1. Discussions on over ageness
 - a. Causes of over ageness
 - b. Remedies for over ageness
 2. Discussion of the normal and bright child
 - c. Teachers meetings before testing programs
 1. Training in uses of tests
 2. Training in giving tests

- d. Teachers meetings following a testing program
 - 1. Training in the uses and interpretation of tests
 - 2. Cooperative work between supervisor and teachers in planning and measuring results of supervision
- e. Teachers meetings in connection with the course of study
 - 1. Discussions in connection with the interpreting of the course of study
 - 2. Discussions in connection with adapting the course of study to local needs

2. Classroom Visitation

- a. An opportunity for the supervisor to discover success or failure of the teaching in regards to the objectives of the supervisory plan
- b. An opportunity for the supervisor to discover the reasons for success or failure
- c. An opportunity for the supervisor to discover pupil and teacher needs before setting up objectives

3. Individual Conferences

- a. A discussion of lessons observed from carefully prepared notes on the teaching observed
- b. Constructive criticism on teaching observed, which will point out methods and means of improvement
- c. An opportunity for the teacher to seek aid in solving her problems

4. Group Conferences after Demonstration Teaching

- a. A discussion of lessons observed from notes taken by the teachers
- b. An opportunity for the supervisor to correct any error in observation on the part of any teacher
- c. An opportunity for the teachers to seek and get aid in solving their problems

5. Demonstration Teaching

- a. Standards for good teaching desired by the supervisor
- b. Concrete illustrations of methods, devices, procedures, and classroom organization

6. County Institutes

- a. Instruction in teaching methods
- b. Development of professional idealism
- c. Development of esprit de corps
- d. Acquaintance with progressive tendencies in rural education as shown by the scientific investigations of educational leaders.

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- e. Instruction in subject matter

7. Circular Letters, and Bulletins

- a. Development of professional idealism
- b. Aid to pupils in furthering their progress along certain lines

- c. Improvement of the quality of programs of various kinds
- d. Promotion of specific educational campaigns and reporting progress in connection there with
- e. Preparation of teachers to profit by certain supervisory agencies
 - 1. Demonstration lessons
 - 2. County institutes
 - 3. Teachers meetings
 - 4. Teachers visits to other teachers
 - 5. Testing programs
 - 6. Research
- f. Promotion of professional reading
- g. Aid to the teachers in interpreting the course of study, and adapting it to local needs

8. Research

- a. Solutions to controversies between teachers and supervisors
- b. Discovery of existing defects in instruction
- c. Discovery of improved methods for the correction of these defects
- d. Formulation of tentative plans for the improvement of instruction
- e. Trial of the new plan under carefully controlled experimental conditions
- f. Measurement of the results of the experiment

- g. Formulation of tentative objectives and standards
- h. Formulation of a plan for the general use of the method

9. Professional Reading

- a. Promotion of professional attitudes among teachers
- b. Assistance to teachers in solving their own problems
- c. Promotion of teacher growth through
 - 1. Acquisition of professional knowledge
 - 2. Acquisition of cultural knowledge

10. Visiting Days

- a. Standards of good teaching
- b. Concrete illustrations of methods, devices, procedures, and classroom organization

11. Teacher Training Institutions

- a. Assistance to teachers in solving their problems
- b. Opportunity for teacher growth through
 - 1. Acquisition of professional knowledge
 - 2. Acquisition of cultural knowledge

(Examples of means of achieving objectives are given in Appendix C. See also Eighth Yearbook of the Department of Superintendence of the National Education Association, pp. 90-91.)

D. Measurement of Results of Supervision in the Rural Schools of Arizona

1. Measurement in Terms of Changes in Achievement of Results

- a. Standard achievement tests

- b. Standard scales
- c. Tests constructed by supervisors or teachers

2. Measurement in Terms of Changes in Teaching Procedure

- a. Enumeration of various items concerning teaching in the classroom in quantitative terms
- b. Description in a meaningful, objective way of the quality of teaching either in one room or in a large number of rooms
- c. Comparisons between conditions in a number of places 40

3. Measurement in Terms of Changes in the Teaching or Learning Situation in the School and Community

- a. Enumeration of changes in teaching or learning situation in the school and community
 - 1. Changes in the teachers as a factor
 - a. Interest in current educational problems
 - b. Understanding of the tools of their profession, such as methods, curriculum, and available diagnostic remedial measures, and professional literature
 - c. Scientific attitude on the part of the staff toward their profession, as shown by desire and willingness to cooperate pleasantly in

40. Brueckner, "Evidence of the Value of Supervision", The Department of Superintendence of the National Education Association Eighth Yearbook, p. 108 (1930).

research and experiments being carried on
for purposes of improvement in education in
general

2. Changes in the pupils as a factor
 - a. Interest in work
 - b. Attendance records
 - c. Progress records
 - d. Attitude toward school, school work, fellow students, and community
3. Changes in the school as a factor
 - a. School equipment
 - b. School buildings and grounds
 - c. School supplies
4. Changes in the community as a factor
 - a. Community interest in the school
 - b. Community attitude toward teachers, school, and school work
 - c. Homes in the community

4. Measurement in Terms of Judgments of Individuals

- a. Judgments of supervisors
- b. Judgments of teachers
- c. Judgments of students
- d. Judgments of patrons

(Examples of the measurement of results are given in Appendix C. See also Eight Yearbook of the Department of Superintendence of the N. E. A. , pp. 98-140, and Anderson and Simpson, The Supervision of Rural Schools, pp. 403-431.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

In the light of the foregoing data and discussions of this study, the following conclusions seem to be justified:

1. A program of supervision should contain the following elements:
 - a. A set of clearly stated, defined objectives
 - b. A clear-cut outline of the means, devices, and procedures to be utilized in the attainment of these ends
 - c. A clear-cut outline of the criteria, checks, or tests to be applied to the results of supervision, in order to determine the success or failure of the program
2. Those responsible for the supervision of the rural schools in Arizona are putting forth little conscious effort in an attempt to discover objectively the needs, problems, or defects of the rural schools.
3. Rural supervisors are not, to any great extent, attempting to set up objectives for supervisory programs.
4. Outside of classroom visiting, and teachers meetings rural supervisors are neglecting to use the many devices or means of achieving objectives in supervision.
5. Rural supervisors are failing to use those devices

and techniques in connection with classroom visiting that tend to make it effective and worth while.

6. There is almost a total lack of attempts to measure the results of supervision in the rural schools of Arizona.

7. The supervision of the rural schools in Arizona is a difficult task, but they can and should be effectively supervised even under the present organization.

B. Recommendations

The following recommendations are offered in a hope that they may lead to the improvement of supervision in the rural schools of Arizona:

1. Every county school superintendent should realize that he is directly responsible for the supervision of the rural schools in his county and proceed accordingly.

2. In every county a study should be made of the records on file in the county office and in the schools themselves, the records of the teaching staff, the social and economic background of the pupils, and the new movements in education pertaining to the rural schools, and a survey stressing the pupils, the teacher, or various elements in lessons in an effort to discover the needs of the rural schools within the county.

3. The county superintendent and the teachers in the rural schools of the different counties should cooperatively select a few of the needs discovered and state them definitely and clearly in the form of objectives for a supervisory program.

4. The means and devices for achieving the objectives should be clearly outlined laying particular stress upon those devices, such as circular letters and bulletins, that are especially adapted to rural supervision.

5. The devices and means of measuring results should be outlined and used in measuring the outcomes of the supervisory program.

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Appendix A

Inquiry blank used in interviewing rural teachers on rural
Supervision in Arizona

Name _____ School _____ County _____

A supervisory program consists of definitely stated objectives, which are determined by careful analysis and survey of the actual situation under consideration, clearly outlined means for achieving these objectives, and a statement of the measures to be used in evaluating these outcomes.

I. Determining the Objectives

1. Have intelligence tests been given to the students of your room? Yes _____ No _____
2. If so, by whom? _____
3. Are the scores on these tests on file in your school building? Yes _____ No _____
4. Are the scores on these tests on file in the County School Superintendent's office? Yes _____ No _____
5. Were achievement tests administered to the pupils of your room during the fall of this school year? Yes _____ No _____
6. If so, by whom? _____
7. Are the scores on these tests on file in your building? Yes _____ No _____
8. Are the scores on these tests on file in the County School Superintendent's office? Yes _____ No _____
9. Were the results on these tests used in any way in planning your school work for this year? Yes _____ No _____
10. As far as you know were these tests used in setting up objectives for a supervisory program? Yes _____ No _____
11. If so, by whom? _____

II. Means of Achieving Objectives

1. Were you visited by any state or county supervisory officer during this school year? Yes _____ No _____
2. If so, how many times by county officers? _____
How many times by state officers? _____

3. While observing classroom instruction did the county officers;
A. Take notes? Yes _____ No _____
B. Teach a class for you? Yes _____ No _____
C. Enter into any class discussions? Yes _____ No _____
4. Did the county officers hold conferences with you after classroom observation. Always _____ Occasionally _____ never _____
5. If so, did county officers discuss the lessons observed with you? Always _____ Occasionally _____ Never _____
6. Did county officers give you any constructive criticism? Yes _____ No _____
7. Did the state officers while visiting your classroom:
A. Take notes? Yes _____ No _____
B. Teach a class for you? Yes _____ No _____
C. Enter into any class discussion? Yes _____ No _____
8. Did the state officers hold conferences with you after observation? Yes _____ No _____
9. If so, did state officers discuss the lessons observed with you? Always _____ Occasionally _____ Never _____
10. Did state officers give you any constructive criticism? Yes _____ No _____
11. Have you this year received in the form of bulletins, or circular letters any material that might be classed as supervisory material from county or state officers? Yes _____ No _____
12. If so, from whom? _____
13. Does your county school superintendent keep on hand a professional library from which you are encouraged to get books and magazines for professional purposes? Yes _____ No _____
14. How many semester hours credit have you earned in the last five years in summer school? _____ By Correspondence? _____
By extension? _____ In regular session? _____
15. Has your county superintendent held group teachers meetings in your district or county this year? Yes _____ No _____
16. Were these meetings supervisory? Entirely _____ In part _____
Not at all _____

- 17. Has your county school superintendent with the aid of the teachers in your county constructed a county course of study within the last five years? Yes _____ No _____
- 18. Did you attend a state or county institute this year?
Yes _____ No _____
- 19. If so, which? State _____ County _____
- 20. Has any demonstration lessons been provided for you by the county school superintendent? Yes _____ No _____
- 21. If so, which of the following:
 - A. Demonstration before one teacher only _____
 - B. Demonstration before a group of teachers _____

III. Measuring Results of Supervision

- 1. Has a follow-up standard achievement test been administered to the pupils in your room this year? Yes _____ No _____
- 2. If so, what subject did the test cover? _____

- 3. Has the county school superintendent attempted to measure the change in your teaching procedure during the year?
Yes _____ No _____
- 4. If so, how? _____

- 5. Has the county school superintendent in any way attempted to measure the change in the teaching or learning situation in your school or community? Yes _____ No _____
- 6. If so, how? _____

Appendix B

A list of the schools visited, the number of teachers in each school, the number of teachers interviewed in each school, and the county that each school was in.

County	Name of school	Number of teachers	Number visited
1. Cochise	1. Dos Cabezas	3	2
	2. San Simon	3	3
	3. Texas Canyon	1	1
	4. Cochise	2	2
	5. Portal	1	1
	6. Stewart	2	2
	7. Dragoon	1	1
	8. Pomerene	4	3
2. Graham	9. Graham	1	1
	10. Eden	3	3
	11. Alger	1	1
	12. Bryce	3	1
	13. Sanchez	2	1
	14. Artesia	1	1
3. Maricopa	15. Riverside	2	2
	16. Grand Ave	3	2
	17. Union	2	2
	18. Morristown	2	2
	19. Nadaburg	1	1
	20. North Marinette	1	1
	21. Dysart	4	3
4. Pima	22. Langhorne	2	2
	23. Vail	3	2
	24. Pantano	2	1
	25. Postvale	2	2
	26. Sahuarita	3	1
	27. Wrightstown	2	1
	28. Continental	2	1
	29. Sopori	2	1
	5. Pinal	30. Oracle	3
31. Red Rock		1	1
32. Mammoth		3	3
33. Eloy		3	3
34. Toltec		1	1
35. Ficacho		1	1
36. Owlhead		1	1
6. Santa Cruz	37. Calabasas	3	1
	38. Tubac	3	1
	39. Santa Cruz	2	1
Total		82	63

Appendix C.

A SPECIFIC PLAN OF SUPERVISION
(Arithmetic)
by

C. J. Pinney

This plan was constructed in connection with a course in supervision at the University of Arizona during the summer of 1933.

I. Objectives.

- A. To increase the ability of pupils in problem solving
 - 1. To make the work done by the pupil more meaningful

II. Means of achieving objectives

- A. A group teachers meeting at the end of the first week of school
 - 1. To explain the testing program that is to be started; the purpose and the results expected
 - 2. To explain the tests to be used and the method of administering them.
 - a. In this case the Stone Standard Reasoning Tests in Arithmetic are to be used, because they were made to coordinate with the diagnostic and practice tests to be given later.
 - 3. To distribute samples of pupil record blanks and explain their use.
 - 4. To take up briefly the desirability of having all work in arithmetic related to practical real life situations or to problems within the experience of the

pupil.

- a. Have a report prepared by capable teacher, to be presented at next group meeting, on the aims of education in arithmetic

B. A series of survey tests

1. The tests will determine the relative standing of each class with relation to the standard achievement for that grade.
2. They will serve as a basis for grouping pupils.
3. They will indicate in a general way the specific needs of each pupil and shall be used in this way to check on results obtained in later diagnostic tests.

C. Classroom visitation to observe testing procedure.

1. Be prepared to give any individual assistance necessary.

D. Conferences

1. To help in grading and grouping
2. To transfer results to pupil record charts
3. To lay individual plans for coming remedial teaching

E. Second teachers meeting to be held at the time when diagnostic tests have been completed and all information recorded

1. Time for this meeting will vary, but six weeks is a reasonable period
2. Go through the list of individual difficulties and stress the importance of grouping pupils according to their needs
3. Have teacher's report on the assigned topic, "Aims of Education in Arithmetic"

5. Spend at least half of the time in going over the outline of the plan to be used in correcting difficulties found on the tests.
- F. Divide the remaining school year into four parts. In each part a major difficulty in problem solving will be treated.
1. First period of about six weeks should be devoted to work of the fundamental processes. Authorities have found that the greatest single percentage of mistakes is caused by this "short coming".
 - a. From information contained on pupil record charts each teacher should be able to determine the amount of drill material needed by each pupil or each group. There should be no excuse for drilling pupils on work in which they are already proficient.
 - b. Review drills are necessary for all.
 - c. If the proper spirit of cooperation has been established, teachers with trouble in this task will solicit help from the supervisor in making drills to take care of individual differences.
 - d. A list of books containing drill material and its use should be placed in the hands of each teacher.
 2. This period should include solution of one step problems.
 - a. The shifting between these two groups should be continuous, and should be made to take care of increases in ability.

3. Accuracy will be the major aim of this period
 - a. Amount and kind of work will depend on this ability
4. Second period of about 12 weeks will be spent in reading and analyzing problems. Work in problem solving
 - a. Group teachers meeting to instruct teachers in making up reading exercises in problem solving.

b. Examples

Multiple choice

In one foot there are 2 - 8 - 12 - 16 inches.

Completion

The answer of an _____ example is called the sum.

True-False

Six per cent is equal to .06.

Simple recall

What is the answer to a multiplication example called?

Recognition

What processes would you use in solving each of the following problems? Write a for addition, s for subtraction, m for multiplication, and d for division.

What is the cost of two apples at five cents each? _____

Yes-No

Is an ounce less than a pound?

Matching exercises

One list of statements another list of replies mixed in a list.

Selection

Under line answers that are correct.

A boy had \$5.00 in the bank. He drew out 75¢ to have his bicycle fixed. Find out how much he had left.

1. You should multiply in this problem.
 2. This problem gives the amount the boy spent.
 3. You are to find how many bicycles the boy had.
- c. Use ten to fifteen minutes three times a week for general problem solving.
5. Third period of about 7 weeks should be spent in solving problems of all kinds.
- a. Group teachers meeting at this time to stress importance of making problems interesting by introducing real life situations.
 - b. A great deal of individual attention must be given during this period and ample time must be provided by supervisor for conferences and visitations.
 - c. A demonstration teaching class to be attended by all mathematics teachers should be held. Especial attention should be given to the assignment and to selection of material.
6. This period should be devoted to increased pupil participation.
- a. Pupils should make their own problems.
 - b. Pupils should make a list of words that have caused or might cause difficulty.
 - c. Work should be done in problems without numbers.

d. Work on explaining the steps to be followed in solving a problem.

e. Restating problems in their own words.

7. Final survey tests

III. Measuring results

A. Retest by a survey test equivalent to first.

1. Use normal growth curves and pupil progress charts
2. Use statistical methods for comparison
3. Analyze, if possible, the attitudes of both pupils and teachers with regard to arithmetic

A General Program of Supervision
(Supervised Study)
by

H. L. Stahnke

This plan was constructed in connection with a course in supervision at the University of Arizona during the summer of 1933.

I. Objectives: The Improvement of Study Habits..

A comparison of achievement scores of our school with those of the norms of the test used, indicate that our students are very unsatisfactory in scholarship. Teachers complain about the lack of real studentship among our pupils. In an effort to find a cause for this situation, my attention is attracted to an unusually large amount of aimless activity during study periods and a lack of genuine interest in class work. This certainly would have a bearing upon scholarship and interest that I want, it seems logical to make my objective the improvement of the study habits of the school in general.

II. Technique: In order to realize my objective, I am going to have to educate my teachers. First, they must realize the situation as it is, and then they must be taught better methods together with a desire to use them. This shall be attempted in three ways: by means of faculty meetings, mimeographed instructions, and classroom visitations followed by personal conferences as needed.

A. Faculty Meetings: These meetings are not going to be more than a half hour in length. It will be necessary

to keep them pepped up and to the point. There will be danger of them going off into meandering discussions.

The general program follows:

a. General discussion of the situation.

1. What is the status of student interest?
2. What causes this deficiency of interest?
 - (a) General low intelligence of student body?
 - (b) General indifferent attitude of community?
(In connection with intelligence I will present the I. Q. curve of the student body--- showing a normal situation.)
 - (c) Fail to understand assignment?
 - (d) Poor habits of concentration?
 - (e) Unable to use library references efficiently?
 - (f) Lack of enthusiasm for the subject by teacher?
3. "What are Proper Study Habits?" Assign this topic to one of the faculty.

References:

Crawford, C. C., "The Technique of Study."
Lyman, "The Mind at Work."
McMurray, "How to Study."
Woodring and Fleming, "Directing Study of High School Pupils."

4. "Directed study vs undirected study". By undirected study will be meant primarily "home study" or 'policed' classroom study.

Two teachers will present these topics. Directed study will be given to a "Doubting Thomas" type of teacher to report on. They will be referred to the above references and also to Kilzer's book "Supervised Study", p. 1-18.

5. "Directed Study Analyzed, " This will be given to another teacher to report on. He will be asked to stress assignments, individual assistance (guidance), and arrangement of class time. He will be referred to Kilzer, "Supervised Study" and Crawford, "The Technique of Study." Also "Woodring and Fleming", "Directing Study of High School Pupils".

B. Mimeographed material on "Directed Study" and references for further study. The outline follows: (It would of course also include any pertinent suggestions made in the the teachers' meetings.)

"I. Divide your class period to suit your particular needs. The general practice is on a half-and-half basis--half recitation and half study.

II. A reorganization of your material may be necessary. Do not hesitate to do this if the present organization is cumbersome for carrying out supervised study.

III. Check your work against the following list:

A. Physical conduciveness of the room toward study--

1. Seat pupils so they get the best light available. The light should not face them nor should it cast shadows on their work.

2. Keep the room well ventilated at all times.

Test this occasionally with the air of the hallway (corridor). The air flow should be about 1800-2500 cubic feet per hour.

3. When possible maintain an even temperature. The best temperature is about 70 degrees F.

4. Keep reference books, dictionaries, and materials conveniently placed.
- B. The nature of the assignment.
1. Your assignment should be definitely related to that which follows.
 2. Have unity in your assignments. Do not have them fragmentary.
 3. Associate drill elements in their proper place.
 4. Take up more interesting and less difficult exercises first.
 5. Make it possible for the student to measure his progress in attaining goals.
- C. The nature of the presentation of the assignment.
1. Keep problem clearly before the pupils.
 2. Relate definitely the work of each unit to what has preceded and to what is to follow.
 3. Do not fail to arouse interest in the assignment even tho you may have to use artificial devices-- but arouse interest.
- D. The attitude of the student during study.
1. Be sure the pupils understand what they are to do.
Be alert to each individual in this respect.
 2. Encourage the students to work independently whenever the opportunity is given.
 3. Impress the value of time upon the student. He should be prompt in getting to work. Again you may have to resort to artificial means--but do not ~~NAG~~-be tactful.

4. Instill the necessity of doing their work quietly and orderly.
5. Discourage useless talking. Whenever necessary to confer with either teacher or another student, have them do so in a low voice.
6. Do not let students wander about the room aimlessly. Find out what is wrong.

E. Teacher guidance during study period.

1. Become conscious of the fact that you are a guide, and not an encyclopedia nor a drill master.
2. Lead your pupils to discover problems and also to reach solutions. Never give an answer outright or direct.
3. Lead your pupils to specific application of new information, abilities, skills, etc. Watch for opportunities to do this---it is quite important.
4. Whenever obvious call attention to correct procedure.
5. Assist your pupils to analyze data into elements whenever you see such procedure profitable.
6. Stimulate your pupils to collect information systematically.
7. Stress the proper use of reference books. Students frequently lose much time in this way.

F. If in doubt ask questions of the supervisor. Do not hesitate to do this.

Be careful of NAGGING your students. Use intelligent methods of gaining your objectives.

IV. References for further study:

- A. For general study technique see bibliography on pp. 137-9 in Kilzer, "Supervised Study".
 - B. For specific technique for your particular subject see above book on pp. 139-150.
 - C. Your especial attention is called to Crawford, C. C., "The Technique of Study".
- C. Classroom visitation. During my visits I will use the check list given to the teachers on the mimeographed material. At the end of each week I will give to each teacher another one of these lists with the items checked in which I found her weak.

Copy of notice sent to teachers at end of each week.

Supervisor's Report
Date _____

Teacher _____ Room Number _____

The form of the outline given below refer to the parts of the check list given you. Note the items carefully and wherever you desire help, feel free to see your supervisor.

The items marked with an asterisk (*) indicate points regarding which the supervisor would especially wish to see you. Make an appointment at your earliest convenience.

A. Physical conduciveness of the room toward study:

1. _____

2. _____

3. _____

4. _____

B. The nature of the assignment.

1. _____

2. _____

3. _____

4. _____

5. _____

C. The nature of the presentation of the assignment.

1. _____

2. _____

3. _____

D. The attitude of the student during study.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

E. Teacher guidance during study period.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

F. Miscellaneous remarks.

This report would indicate the strong points of the teacher as well as the weak points. The asterisk would be used primarily for indicating conferences the supervisor may want to have with this teacher, not merely to talk over weak points but perhaps to personally commend a strong point. On some certain point it may be very desirable to have that teacher make a report before the faculty. This report will be made in duplicate--the copy placed in file of supervisor. Accumulation of copies may serve as record of teacher improvement.

D. Conferences will be had with teachers as needed. This is indicated in the previous paragraph.

III. Measurement of Results:

A. Reading Tests: Courtis Research Tests in Silent Reading.

*Gates Silent Reading Test.

This test is good for corrective work. It will have been given at the beginning of the program so as to give each teacher something definite to work on during study periods.

The other test could be used at the end of the year to denote improvement. Another form of Gates' test could be given also at the close of the testing period.

B. Achievement Test: Another form of the same achievement test given the previous year is administered at the end of this year. A higher mean score would indicate improvement.

C. Subjective: Observations of supervisor and teachers.

N. B. This program will serve as a stepping-stone for the probable objective of the next year, i. e. Individualized Instruction.