Curriculum development processes in selected small Montana school districts
by James Lee Kimmet

A thesis submitted in partial fulfillment of the requirements for the degree of DOCTOR OF EDUCATION
Montana State University
© Copyright by James Lee Kimmet (1979)

Abstract:
This study was an investigation to determine the curriculum development processes used in selected small Montana school systems and to compare administrator and teacher perceptions of the processes used.

The questions to be answered dealt with which curriculum development processes were used, which provided the most satisfaction, which were perceived as most effective, the amount of time spent on curriculum development, and perceptions of barriers and influences on the curriculum. It also compared teacher and administrator responses and determined the kinds of assistance they desired.

The review of literature conducted during this study centered on small school characteristics, the various small school improvement projects, and change theory. It was found that small schools do not compare well with large schools in attributes that are a function of size; i.e. number of course offerings, variety of activities, staff size, and fiscal resources. Their strengths centered about the humanistic possibilities allowed by working with small numbers of students and the sense of community generated. The most successful small school improvement projects required a community basis and demonstrated that uniquely small school practices must be developed rather than adopting large school practices.

The method of research used in this study was to review Fall Accreditation Reports, accreditation letters, and the administration of a questionnaire to all the administrators and a sample of teachers in the sixty-four third class school districts in Montana.

The data showed that: 1. The accreditation process is not much concerned with curriculum development.

2. Curriculum development in most, but not all, schools consisted of textbook review and adoption. The most satisfactory and effective methods were tied to this process.

3. Schools generally did not fix responsibility or designate specific time for curriculum development.

4. The primary need was information on curriculum materials and methods of developing curriculum.

5. Teachers tended to view various barriers to curriculum development as larger barriers than did administrators.

6. Teachers preferred strategies providing them with autonomy; administrators preferred use of group strategies.

7. There was very little evidence that change theory was utilized effectively in the respondents' schools.

8. Teachers and administrators differed significantly (.05 level) in all aspects of the study.

I would like to dedicate this study to the people who have always encouraged me to do my best work: my parents, George and Delores Kimmet, and my wife, Sue.

CURRICULUM DEVELOPMENT PROCESSES IN SELECTED SMALL MONTANA SCHOOL DISTRICTS

by

James Lee Kimmet

A thesis submitted in partial fulfillment
of the requirements for the degree

of

DOCTOR OF EDUCATION

Approved:

Leroy J. Casagranda
Chairman, Graduate Committee

Henry M. Worcester
Head, Major Department

Henry L. Parsons
Graduate Dean

MONTANA STATE UNIVERSITY
Bozeman, Montana

June, 1979

ACKNOWLEDGEMENT

I would like to thank those teachers and friends who helped me pursue this work to completion: Dr. Leroy Casagranda, my major advisor, Dr. John Kohl, Dr. Gerald Sullivan, Dr. Henry Worrest, and Dr. Ronald Lundquist, who gave freely of their time as committee members. Thanks also to Dr. Robert Thibeault, who offered much informal help and advice concerning this project and school administration in general.

Finally, I would like to thank my wife, Sue, who worked by my side and always encouraged me, and my sons, Jamie and Mike, who gave me the time to pursue my education.

TABLE OF CONTENTS

Chapter		Page
I.	INTRODUCTION	1
	STATEMENT OF THE PROBLEM	6
	NEED FOR THE STUDY	6
	QUESTIONS TO BE ANSWERED	9
	GENERAL PROCEDURES	10
	LIMITATIONS OF THE STUDY	11
	DEFINITIONS	12
	SUMMARY	13
II.	REVIEW OF LITERATURE	16
	CHARACTERISTICS OF SMALL AND RURAL SCHOOLS	17
	Definition of the Small School	17
	Small School Statistics	18
	Small School Quality	19
	Strengths of Small Schools	20
	Small School Weaknesses	22
	CHARACTERISTICS OF SMALL SCHOOL CURRICULUM	23
	SMALL SCHOOL IMPROVEMENT PROJECTS	27
	CHANGE THEORY	31
	Resistance to Change	31

Chapter		Page
	Theories of Change	33
	Models of Change	34
	Axioms of Change	38
	SUMMARY	40
III.	PROCEDURES	46
	THE POPULATION DESCRIPTION	46
	THE METHOD OF COLLECTING DATA	48
	Fall Accreditation Reports	48
	Accreditation Letters	49
	Mailed Survey Sample	49
	Development of the Questionnaire	50
	Reliability	50
	Validity	51
	Administration of the Instrument	51
	THE SURVEY SAMPLE	51
	THE STATISTICAL HYPOTHESES	57
	THE ANALYSIS OF THE DATA	57
	SUMMARY	58
IV.	PRESENTATION OF THE DATA	62
	FALL ACCREDITATION REPORTS AND LETTERS	62
	CURRICULUM DEVELOPMENT STRATEGIES	64
	TIME SPENT ON CURRICULUM DEVELOPMENT	69

Chapter Page

CURRICULUM DEVELOPMENT ASSISTANCE DESIRED 73

INFLUENCES ON CURRICULUM 79

SATISFACTION WITH CURRICULUM DEVELOPMENT STRATEGIES 86

EFFECTIVENESS OF CURRICULUM DEVELOPMENT STRATEGIES 97

BARRIERS TO CURRICULUM DEVELOPMENT 103

SUMMARY 112

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS 118

SUMMARY 118

Review of Literature 119

Procedures 122

CONCLUSIONS 124

RECOMMENDATIONS 133

Recommended Practices for Curriculum Development 137

Recommendations for Further Study 141

REFERENCES CITED 142

APPENDICES 149

A. COVER LETTER 150

B. QUESTIONNAIRE 151

C. VALIDATION QUESTIONNAIRE 157

D. LETTER TO CLERKS 159

LIST OF TABLES

Title		Page
1.	POPULATION SCHOOL DISTRICTS	47
2.	STRATIFICATION OF TEACHER POPULATION	54
3.	RESPONDENT DISTRIBUTION GOODNESS OF FIT TO SAMPLE DISTRIBUTION	56
4.	CURRICULUM DEVELOPMENT STRATEGIES USED BY RESPONDENTS' SCHOOL DISTRICTS	65
5.	TIME SPECIFICALLY DEVOTED TO DEVELOPING AND EVALUATING CURRICULUM	70
6.	CURRICULUM DEVELOPMENT ASSISTANCE DESIRED	74
7.	CURRICULUM DEVELOPMENT ASSISTANCE DESIRED CONTINGENCY TABLE	77
8.	INFLUENCES ON THE CURRICULUM--AVERAGE OF RESPONSES TO A FIVE POINT SCALE	80
9.	ITEMS HAVING MOST AND LEAST INFLUENCE ON THE CURRICULUM	84
10.	SATISFACTION WITH VARIOUS CURRICULUM DEVELOPMENT STRATEGIES--AVERAGE OF RESPONSES TO A FIVE POINT SCALE	89
11.	CONTINGENCY TABLE OF TOTAL SCORES PERTAINING TO SATISFACTION WITH SELECTED CURRICULUM DEVELOPMENT STRATEGIES	91
12.	CURRICULUM DEVELOPMENT STRATEGIES THAT PROVIDE THE MOST SATISFACTION	93
13.	CONTINGENCY TABLE OF SELECTED CURRICULUM STRATEGIES THAT PROVIDE THE MOST SATISFACTION TO RESPONDENTS	95

Title		Page
14.	PERCEIVED EFFECTIVENESS OF CURRICULUM DEVELOPMENT STRATEGIES--AVERAGE RATINGS ON A FIVE POINT SCALE . . .	98
15.	CONTINGENCY TABLE OF TOTAL SCORES PERTAINING TO PERCEIVED EFFECTIVENESS OF CURRICULUM DEVELOPMENT PRACTICES	101
16.	DEGREE OF CONCERN PERCEIVED BY TEACHERS AND ADMINISTRATORS TOWARD VARIOUS CURRICULUM BARRIERS--AVERAGE RESPONSES TO A FOUR POINT SCALE	104
17.	CONTINGENCY TABLE OF TOTAL SCORES PERTAINING TO CONCERNS ABOUT SELECTED BARRIERS TO CURRICULUM DEVELOPMENT	107
18.	GREATEST BARRIERS TO CURRICULUM CHANGE	109

ABSTRACT

This study was an investigation to determine the curriculum development processes used in selected small Montana school systems and to compare administrator and teacher perceptions of the processes used.

The questions to be answered dealt with which curriculum development processes were used, which provided the most satisfaction, which were perceived as most effective, the amount of time spent on curriculum development, and perceptions of barriers and influences on the curriculum. It also compared teacher and administrator responses and determined the kinds of assistance they desired.

The review of literature conducted during this study centered on small school characteristics, the various small school improvement projects, and change theory. It was found that small schools do not compare well with large schools in attributes that are a function of size; i.e. number of course offerings, variety of activities, staff size, and fiscal resources. Their strengths centered about the humanistic possibilities allowed by working with small numbers of students and the sense of community generated. The most successful small school improvement projects required a community basis and demonstrated that uniquely small school practices must be developed rather than adopting large school practices.

The method of research used in this study was to review Fall Accreditation Reports, accreditation letters, and the administration of a questionnaire to all the administrators and a sample of teachers in the sixty-four third class school districts in Montana.

The data showed that:

1. The accreditation process is not much concerned with curriculum development.
2. Curriculum development in most, but not all, schools consisted of textbook review and adoption. The most satisfactory and effective methods were tied to this process.
3. Schools generally did not fix responsibility or designate specific time for curriculum development.
4. The primary need was information on curriculum materials and methods of developing curriculum.
5. Teachers tended to view various barriers to curriculum development as larger barriers than did administrators.
6. Teachers preferred strategies providing them with autonomy; administrators preferred use of group strategies.
7. There was very little evidence that change theory was utilized effectively in the respondents' schools.
8. Teachers and administrators differed significantly (.05 level) in all aspects of the study.

Chapter I

INTRODUCTION

The mid 1970's was a time in which schools were forced to recognize and deal with change. The total environment was composed of many varied social systems integrated in a weblike configuration, and the acceptance of change in any one subsystem required response from the other social institutions linked to it. It was logical that the institutions of a rapidly changing society must also be rapidly changing. The changes occurring in a society at that time required an educational system that was dynamic and could accommodate changes in society (Rogers and Svenning, 1969).

The basis of the educational enterprise was the amalgamation of activities and experiences which it provided the learner. The purpose of these activities was to bring about "a type of social change, a change in people" (Saylor and Alexander, 1966:39). Thus, the role of education in social change was to bring about a change in behavior or to produce certain student outcomes. The desired outcomes must be ever changing to meet the needs of a dynamic society and to follow changes in culture. These outcomes, or curriculum, must be the focal point of change in schools (Neagley and Evans, 1967).

Small schools have been characterized by Rogers and Svenning (1969) as lagging behind other types of schools in innovations and

change. Montana had an abundance of small school systems. There were, for example, sixty-four third class districts operating K-12 school systems with total populations of one thousand or less, and student populations averaging only 155 in grades K-12. This was less than half the number suggested by Conant (1959) and Jackson (1966) for a four year high school. These sixty-four districts comprised 39 per cent of the total number of K-12 systems operating in Montana (Montana Educational Directory, 1977).

The typical K-12 third class district was staffed by one or two administrators and approximately fifteen certified teachers and auxiliary personnel (Montana Educational Directory, 1977). By statute the district was directed by three to five unpaid trustees elected by popular vote (Revised Codes of Montana, 1947).

In his studies of school superintendents, Carlson (1965a) found that the more innovative superintendents had more formal education, held more prestigious superintendencies, were involved in many educational activities, perceived more support for change among board members, relied more on outside information and advice, and attended more educational meetings than less innovative superintendents. Change in small schools was most apt to be through personnel, and in particular, through the superintendent (Gehlen, 1969). Therefore, an examination of the typical third class

district superintendent was felt to be necessary to understand the setting for change in these schools.

Third class district superintendents generally possessed the master's degree and the minimum three years of experience required for certification as a superintendent in Montana, although some did not. Fourteen per cent exceeded minimum educational requirements. They had been superintendents for an average of 6.18 years and held their present position for an average of 2.78 years. They had an average annual salary of $16,583.00 (Montana State Council of School Administrators Salary Survey, 1977).

When these characteristics of the typical third class district superintendent were contrasted with the same characteristics of the first and second class district superintendents, notable differences were observed. On the average, the latter group had 9.43 years of superintendency experience and a total professional experience averaging twenty years. They averaged 4.58 years in their present positions and 22 per cent reported education beyond the minimum certification requirements. Their average annual salary was $21,968.00 (Montana State Council of School Administrators Salary Survey, 1977).

It should be noted also that all first and second class district superintendents had one or more principals, and in some

cases, a centrad office staff. Only 38 per cent of the third class district superintendents had even one principal to share the work load of the district. The writer found, as a third class district superintendent, that his time and that of his colleagues in similar districts, was spent in the operation of the day-to-day affairs of the district with little or no time available for the planning of change. These facts showed that varying degrees of innovativeness in school superintendents as related to several variables are found. The writer's experience showed that these variables applied to third class district superintendents as well. Thus, the process of change in third class districts appeared less likely to be as well planned or executed as in larger districts.

Another aspect of the setting for change in the third class district was the traditional orientation of rural communities. That was pointed out by Vidich and Bensman (1958) in their study of a small town in upstate New York. This tended to be further reinforced by the habit of hiring teachers whose values were in line with those of the community. Often, this was reflected by giving preference to teachers originally from the community. If local persons were not available, teachers with similar backgrounds were preferred (Gehlen, 1969).

In the smaller schools, there was a limitation on curriculum offerings that was directly related to size, A 1974 study of Montana high schools showed course offerings averaged twenty-five for the nine smallest high schools, 39.7 for the median nine high schools, and 106.5 for the nine largest high schools (Barnett). Seyfert (1937) concluded that because of the limited offerings in the smallest schools, it would seem that skill in discrimination of needs and allocation of scarce resources to get the most value from limited staff and facilities is needed to ensure a quality education.

Finally, although they extensively mentioned program offerings, the Standards for Accreditation of Montana Schools (1976) only made cursory mention of curriculum change. Specifically, the standards required cooperative planning by administration and teachers of in-service programs for curriculum development. A review in elementary schools of text materials every five years was also required. Nowhere was changing or updating suggested. Conceivably, a school could offer the same curriculum for a period of thirty years because there was no legal incentive to change. Therefore, change had to be mandated from within the traditionally oriented community. Vidich and Bensman (1958) indicated that this was not likely to happen.

Although opinions on small schools ranged from the early observation that they are "bordering dangerously close to educational

coma" (Foght, 1912:2) to expressions that the effectiveness of small schools can be better than in large schools (Schoenholtz, 1972), it was evident that the small school differed from the large school in aspects other than size, and that the uniqueness of problems and conditions required approaches to change which were designed to meet the special conditions found in small schools.

STATEMENT OF THE PROBLEM

The problem of this study was that there appeared to be little or no incentive for small Montana school systems to constantly evaluate and update curriculum and that the processes for doing so were deficient.

This study was intended to determine the curriculum development processes found in selected small Montana school systems (K-12) and compare teacher and administrator perceptions of the processes used.

NEED FOR THE STUDY

Traditionally, the small school system has been viewed as inferior to its larger counterparts. McClurkin (1970) found that course offerings in such schools were limited to college preparatory subjects and to meeting minimum graduation requirements. He also stated that such schools were not generally able to provide the

strong leadership and technical assistance required for curriculum improvement. In some ways, McClurkin's statement may have fit the small Montana school system, but a study of Montana schools was needed to show that this generalization extended to them.

The traditional curriculum development model described by such writers as Saylor and Alexander (1966) and Neagley and Evans (1967) relied heavily on the use of committees, councils, co-ordinators, middle management, and teacher representation of various grade levels and subject areas. This arrangement is not feasible with only an average of sixteen professional staff members to share the task. Alpren (1962) found that smaller districts were not active in curriculum development. He suggested the solution of consolidating to make the districts larger. The fact remains, however, that small districts do exist, and that curriculum development processes must be designed to fit the small staffs and meager resources for curriculum development. A first step in designing these processes is to identify and assess the strengths and weaknesses of current practices. The writer found no study that had done this for the small Montana school district.

This study provided information about what curriculum development processes were being used and how well they met the needs of administrators and teachers. Other than the various special school

projects, such as the Texas Small Schools Project described by Wilson (1970), there was little in the literature which indicated the use or degree of effectiveness of specific curriculum development processes in the small school system. This study was needed to provide basic information for the evaluation of the effectiveness of change in small schools.

The Standards for Accreditation of Montana Schools (1976) said little about curriculum. It is natural to wonder if the standards were not lacking by failing to mandate curriculum development per se. It was important to determine if there were adequate curriculum development activities under the 1976 standards, or if additional regulations should have been imposed. Such a determination could be made only after making a status study such as this one.

Finally, this study was intended to determine the scope of curriculum development in small schools in Montana. Although small schools have been stereotyped nationally as being provincial, conservative, and not as innovative as larger schools (Rogers and Svenning, 1969), proof of this was not available for the Montana schools considered in this study.

QUESTIONS TO BE ANSWERED

This study attempted to answer the following questions:

1. What are current curriculum development practices in the population school districts as reported by teachers and administrators?

2. How much time did administrators and teachers report as being spent developing and evaluating the curriculum? How did the time for the two groups compare?

3. What curriculum assistance was desired by teachers and administrators? How did the desires of the two groups compare?

4. What were the major administrator and teacher concerns about curriculum development? Were there noticeable differences between administrator and teacher concerns?

5. Which curriculum development processes were perceived by teachers and administrators as being most effective? How did the two groups compare?

6. Which curriculum development processes generated the greatest administrator and teacher satisfaction? How did the two groups compare?

7. What forces provided the impetus for curriculum change in the population school districts?

GENERAL PROCEDURES

The procedures used in this study were:

1. A thorough review of the literature was conducted to determine the characteristics of small school curriculum, the processes of curriculum development generally used in all schools, and the processes of planned change.

2. A review of Fall Accreditation Reports submitted to the Montana Superintendent of Public Instruction for the years 1977-1978 and accreditation letters sent to schools in 1973-1978 was conducted.

3. A survey instrument intended to elicit responses concerning practices of curriculum development in the population schools was developed.

4. A mailed survey of all the administrators and a random sample of instructional personnel in the population school districts was conducted. One survey instrument was used for both groups of respondents.

5. Data obtained from the review of Fall Accreditation Reports and the mailed survey responses was organized in tabular and narrative form so that appropriate comparisons could be displayed to facilitate statistical analysis of the data.

6. Based on the data collected, guidelines for curriculum development in small schools incorporating promising practices as identified by the study were proposed.

LIMITATIONS OF THE STUDY

The limitations of this study were as follows:

1. Data was derived from a mailed questionnaire and reports submitted from the administrators and teachers of the population districts.

2. Turnover of certified staff made it difficult to contact primary participants in curriculum development processes within a particular school.

3. The study was limited to the sixty-four third class school systems (K-12) operating in Montana.

4. The review of the literature for this study was limited to the resources and services of the libraries of Montana State University and the University of Montana, inter-library loan, and the Montana State Library computer on line search of the ERIC file.

DEFINITIONS

Administrator:

An administrator is a certified staff member designated as either a district superintendent or principal, regardless of the certificate held. Supervising teachers were not considered to be administrators in this study.

Curriculum:

The curriculum is "all the planned experiences provided by the school to assist pupils in attaining designated learning outcomes to the best of their abilities" (Neagley and Evans, 1967:2).

Curriculum Development:

Curriculum development is the process which encompasses the following activities: (a) organization of the curriculum design structure, (b) selection of the outcomes of instruction, (c) designation of appropriate content material, and (e) trial and evaluation of the curriculum (Neagley and Evans, 1967).

Instructional Personnel:

Instructional personnel are certified persons employed in a school who are not designated as either a principal or a superintendent.

Third Class School System:

A third class school system is one which offers instruction in grades K-12 with a total population of no more than one thousand residing in the school district (Revised Codes of Montana, 1947).

SUMMARY

The mid 1970's was a time of change and the changes occurring at that time required a dynamic educational system to accommodate them. The focal point of this change in the schools was the curriculum.

Small Montana school systems, by their very nature, seemed on the surface, to fit the stereotypes found in the literature. Such schools were characterized as being deficient in many areas and did not seem to provide the environment for change in curriculum required by the changing society of the time.

This study was conducted to determine the curriculum development processes in selected small Montana school systems and to compare administrator and teacher perceptions of the processes used.

The needs for the study were for a determination of whether or not the literature stereotype fit the population schools, identification and assessment of curriculum development processes in use was not available prior to the study, and an evaluation of the

effectiveness of accreditation standards concerning curriculum development was needed.

Questions to be answered concerned information on the nature of curriculum development practices, amounts of time spent on curriculum development, curriculum development assistance desired by administrators and teachers, administrator and teacher curriculum development concerns, which processes were most effective and generated greatest administrator and teacher satisfaction, and what forces provide impetus for curriculum development in the population schools.

The study involved the use of a mailed survey to a sample of teachers and all administrators of sixty-four small Montana school districts (K-12). The survey was supplemented by a review of Fall Accreditation Reports for the period 1977-1978 submitted to the Office of Public Instruction. Data collected was presented in tabular and narrative form to facilitate easy use.

Limitations of the study included reliance upon a mailed questionnaire and reports submitted by population school administrators, a review of literature limited to library facilities and services available at Montana State University and the University of Montana, literature obtained from inter-library loan and Montana State Library computer on line search of the ERIC file. A final

limitation was the difficulty of conducting the survey because of the high rate of personnel turnover in the sixty-four population schools.

Chapter Two will present a review of literature pertaining to this study.

Chapter II

REVIEW OF LITERATURE

INTRODUCTION

The review of literature was accomplished by examining a great many books, periodicals, and miscellaneous publications. These materials were obtained from the libraries of the University of Montana, Montana State University, and through inter-library loan and Montana State Library computer on line search of the ERIC file.

The review is divided into four main topics. These are:

1. Characteristics of Small and Rural Schools
2. Characteristics of Small School Curriculums
3. Small School Improvement Projects
4. Change Theory

It was the aim of the review to carefully examine current thought and research on small schools, and in particular, curriculum development in small schools. The body of literature relating specifically to Montana schools was limited and has made it necessary for nationally derived observations to be applied to Montana schools.

Part of this study was a comparison of its results with the national generalization about small and rural schools.

CHARACTERISTICS OF SMALL AND RURAL SCHOOLS

This section will review the literature definitions, statistics, quality, strengths, and weaknesses of small schools.

Definition of the Small School

To provide clarification of what is meant by a small school, Carleton (1966:98) noted schools in Montana had a median size of 116 students. He further suggested that while NEA chose 300 pupils as the upper limit for a small school, and that the Western States Small Schools Project chose 200 pupils as its upper limit, the division by Barnes (1948) be used.

The Barnes system divided Montana high schools into five brackets: (1) over 1500, (2) 1500-351, (3) 350-151, (4) 150-76, (5) 75 and under. Carleton indicated that most studies done in Montana used 150 as the upper limit of small school enrollment.

Another workable definition that encompassed K-12 schools was proposed by Broady and Broady (1974:3). These authors defined a small school as one in which there is more than one teacher in the school, but generally no more than one or two teachers per grade. At the secondary school level, they set no lower limit, but presumed there would be no more than fifty pupils per grade enrolled.

The majority of the literature reviewed adhered roughly to

the previously mentioned concepts of small schools. The statistics presented in this study are based on these general definitions.

Small School Statistics

Over the years, there have been many statistical studies of small schools. A very large percentage of the public schools in the United States have been small rural ones (Schloss and Hobson, 1956). The number of such schools has been significantly reduced during recent years. For example, between 1930 and 1952 the number of small high schools declined from 26.7 per cent of the total number of schools to only 11.7 per cent. Two reasons for this decline were consolidation made possible through improvements in transportation and closures due to emigration from rural areas.

In 1964, 28.8 per cent of schools holding membership in the Northwest Association of Schools and Colleges were considered small (Carleton, 1966). This contrasts with a United States Office of Education study in which 42 per cent of all high schools enrolled fewer than two hundred students (Ford, 1959). It is interesting that the same study indicated these schools enrolled only 20 per cent of the students in school at that time.

Although the number of small schools seemed to be declining, authorities surmized that small schools will continue to exist in the coming decades (Sybouts, 1970). School reorganization and

consolidation had been carried out to an optimum level in many areas, but there were still some necessarily small schools in existence. Because these schools were necessary to serve isolated youth, it was important to see that each one found a way to satisfactorily serve its students (Oliver, 1966:47).

Small School Quality

A considerable portion of the literature on small schools was concerned with a comparison of the quality of the small school with that of the larger schools. Most often, such comparisons presented the small school in an unfavorable light. This was because the structure of most studies focused on standards which were functions of size (i.e. class offerings, activity offerings, staff size, etc.).

Hoover, in a 1941 study, pointed out that graduates of large high schools were not at all convinced that high schools should be large. Dawson (1934) was able to link school size with efficiency. He was not able to show that student achievement was conclusively linked to school size. Sybouts (1970) did conclude, however, that even though patrons of rural schools can point out small school graduates who have gone on to college and been successful, generally small school graduates experience less success in college than do graduates from larger schools.

A 1976 study of secondary education in Montana which compared student achievement in large and small schools concluded that school size was not a determinant of achievement (Kimble, et al., 1976). It did find, however, that variables influencing achievement differ for the small school student. Another important conclusion was that different schools of the same size may have to spend different amounts of money to maintain achievement at a constant level.

Voelker and Ostenson (1970:25), in a study of North Dakota schools, stated that "the quality of education, as indicated by average test scores, tends to vary directly with size of the school." They also indicated the curricula of smaller high schools "tends to be drab and monotonous, providing few electives for individual students."

Such studies generally have caused those districts which have maintained their small schools to often feel, at best, defensive and, at worst, ashamed of being out of date and out of touch with the mainstream of American culture (Sher, 1977:104).

Strengths of Small Schools

Several writers have catalogued the strengths of small schools. One of the most comprehensive lists of purported strengths was presented by the North Central Association of Colleges and Secondary Schools (1974:7). These strengths were:

1. Close working relationships between faculty and administration.
2. Bureaucratic control and red tape is less prevalent in small schools than in large schools.
3. Decisions in small schools can be made on individual, rather than on collective bases.
4. There is a sense of community felt by the school, fostering more involvement by students, parents, faculty, and community.
5. Student-teacher ratios are generally more favorable than in larger schools.
6. A greater potential for individualization exists.
7. A student is presented with greater opportunity to discover his identity.
8. There are more opportunities for students to participate in the total activity program. In fact, every student is needed.
9. Every student and teacher plays a vital part in the school.
10. Guidance becomes a staff-wide function available at the point of need.
11. Because ability grouping is generally not possible, the inherent problems in ability grouping are averted.
12. Discipline procedures can be more personalized.
13. Teachers must be more the generalist and retain a broader view than the specialist.
14. Changes are easier to make because there is less organizational inertia.
15. Teachers are able to know parents better.
16. There is a larger proportion of parent involvement in the schools.
17. Staff relationships can be closer, fostering greater cooperation.

The authors of this list did not presume that all small schools had these qualities by presenting the following caveat:

> These strengths are merely potentials until a dedicated staff and an enlightened administration combine to turn them into realities. If a small school ignores these strengths in developing its program and processes, then it will languish in its smallness.

Another listing of strengths was found in the report of the Small Schools Invitational Conference (1974). This report stressed, among other strengths, organizational strengths inherent in closeness of management to the students, ease of implementation of change, and better ability to gauge student ability and progress. Sociocultural strengths and classroom management strengths were also presented. The report, like many of the others, noted that most of the listed strengths were based on general observation, rather than strictly controlled research.

Both listings of small school strengths were based on the human element. These strengths could become weaknesses if the potentials for human interaction are not met (Sturges, 1974).

Small School Weaknesses

The bulk of studies concerning small schools dwelled, at least in part, on their weaknesses. Even reports generally favorable to small schools listed one or more weaknesses. One example was the report by Schoenholtz (1972) in which he stated that the most important weakness of the small school was its frequent failure to prepare students well for college or an occupation.

Oliver (1966) provided the criticism that curricula in small schools were less varied. They lacked teachers, tax base for adequate financing, facilities, and salaries comparable with those

of larger schools.

Because the average small school teacher had between five and six preparations per day, it was unrealistic to suppose adequate preparation on the part of the teacher or ability to keep up with curriculum development in all subjects (Sher, 1977:103).

Other problems inherent in small schools included lack of programs for children with special needs. Small schools were largely unprepared to deal with physical and mental handicaps (Sher, 1977).

Higher cost per pupil was another weakness, which, when coupled with a low tax base, limited educational opportunity in small schools. It had also been noted that small schools are hardest hit by change, especially those changes mandated, but not funded, by outside agencies (Small School Invitational Conference, 1974).

CHARACTERISTICS OF SMALL SCHOOL CURRICULUM

Traditionally, the small rural school curriculum had been viewed as being more limited than that of urban schools, and out of the mainstream of educational practice and theory. One early treatise on rural education described the rural school as close to educational coma (Foght, 1911:2). This view, even though extreme, had been shared by others.

In a 1948 study, it was observed that the limited services offered in most small rural districts placed children of these districts at a serious disadvantage. In most of these schools, it was noted that children had little opportunity to develop their capacities in art, music, or dramatics. Limited high school opportunities often did not include business education, machine shop, auto mechanics, or vocational agriculture, even though they were located in farming communities. McClurkin (1970:24) also noted this same problem and further observed that "opportunities in rural schools are further limited because America has patterned its rural schools so much after urban practice that rural life has been ignored."

An evaluation of business education in Montana high schools (Hertz, 1972) strengthened this observation by finding that business education leaders in both large and small schools subscribed to the same curriculum offering ideal. That is, there was no difference in curriculum offerings that they would like to see offered in their schools.

Miller (1970) found that in Oregon schools the same problems persisted that existed for many years. He noted that poor curriculum quality was prevalent and that this was due to the necessity of multiple assignments for staff and limited offerings because sufficient faculty and resources were not available.

The limitations of curriculum offerings of small high schools in Montana were described by Barnett (1974). The nine smallest high schools had an enrollment of 35.3 and offered 25 courses, on the average. The nine median sized schools had an average of 128.6 students and offered an average of 39.7 courses. By contrast, the nine largest high schools had an average of 1674 students and offered 106.5 courses.

The large discrepancy in offerings available logically led to the question of accreditation. Size alone was not the basic criterion for determining accreditation, but when a school was small and this was coupled with inadequate financial support, the presence of a quality program was unlikely. In the Southern Association of Schools and Colleges, the trend was very definitely away from accreditation of the small school as evidenced by fewer applications for membership from small schools (Wilson, 1966).

The Northwest Association of Schools and Colleges reported a significant number of small schools in its membership according to Carleton (1966). He pointed out that the ingredients of a good school would include (1) a good administrator, (2) fully prepared teachers, (3) a comprehensive program, (4) well-qualified special services personnel, (5) adequate physical plant, (6) ample teaching aids, and (7) community support. Of these, he contended that special

services and a comprehensive program could hardly be offered with the minimum required staff (five). Therefore, he supported standards requiring larger staffs.

Standards for Accreditation of Montana Schools (1976) made numerous allowances for the limited curricular offerings of small schools. The only limitation placed on school size was to require an average number belonging (ANB) of twenty-five for high school and an ANB of nine for non-isolated elementary schools. The minimum number of courses required was twenty-four.

Accreditation standards were difficult for small schools to meet. In 1961 approximately 25 per cent of all small schools were regionally accredited (Oliver, 1961). This figure was 54 per cent in 1975, although the number of small schools had decreased. This compared with an 84 per cent rate for large urban schools (Sasser, 1975).

The small school curriculum, while more limited in scope than that of the larger school, was successful in areas other than quantity. One Washington State study, while favoring consolidation wherever possible, did find a better opportunity for teacher-pupil interaction in small schools (Ford, 1967). This was further stressed by Cohodes (1971) who wrote that a small high school was a better place for a humanistic education than a large school. This was

especially true because in a small school, every student not only had worth, but was needed; all could particiapte and fully utilize the curriculum.

The opportunity to participate in school activities was much greater in a small school. In Kansas, a comparison between a large school and small schools showed that even though the large school had twenty times as many students, it only offered 1.4 times as many activities as the small school. Proportion of participation by students in small schools was approximately twenty times that of the large school. Students also indicated a greater feeling of attraction to non-class activities and a greater sense of responsibility to participate than their large school counterparts (Barker and Gump, 1974).

Finally, the curriculum in a small school could often be more effective because communication between all parts of the school could be better. An idea could be born and brought to fruition without getting lost in a bureaucratic morass (Schoenholtz, 1972).

SMALL SCHOOL IMPROVEMENT PROJECTS

Sturges (1974) described six major adaptations that had improved small schools. These included: (1) development of shared services programs, (2) addition of courses via television,

correspondence, seminars via telephone, etc., (3) flexible scheduling, (4) development of empathy for the learner, (5) development of close community relationships to solve problems, and (6) maximum utilization of available resources. Sturges also noted that these adaptations had served to maintain, as well as improve, the small school.

A project centered in the eastern United States was the Rural School Improvement Project of Berea College. This project, conducted from 1953-1957, infused trained, experienced professionals into the thirty-eight target communities. It included such techniques as use of volunteers, physical improvements to facilities, and work in other community projects, all of which were sponsored by Berea.

The Berea project was evaluated as being successful, but a follow-up to determine the long term effects had not been done (Sher, 1977:108).

Other projects which provided infusions of expertise and an intensive in-service program were the Alaska Rural Schools Project and the Texas Small Schools Project. These and other outside-agency sponsored projects filled important needs for specialized teacher training. Sher (1977:109) contended that as long as they were not considered the only necessary improvement, these projects were useful.

There were several other projects that used the outside-

model for change. These included the Catskills Small Schools Project, Oregon Small Schools Project, Western States Small Schools Project, and the Susquehanna Valley Improvement Project (Stutz, 1967:197).

A second model for improvement projects was based on proposals from the schools themselves.

In a description of a project by a consortium of three small New Hampshire school districts, Peters (1978) found that curriculum enrichment was possible using a variety of resources, but that time, staff quality, administrative leadership, funds, materials, and evaluation procedures all affected the components of the project.

The Experimental Schools Program (ESP) funded by the National Institute of Education was conceived as a mechanism by which small school districts could, under federal contract, assess their own needs and objectives and plan and implement comprehensive programs to accomplish them. These projects allowed for community centered projects and resulted in products uniquely a part of the communities in which they were conducted. A perceived shortcoming of these projects was the narrow focus of their proponents (Sher, 1977:110).

A third model for small school improvement was the regional education laboratory. Two of these organizations had devoted a large part of their resources to rural education and small schools. The

Northwest Regional Educational Laboratory (NWREL) had gathered and published collections of locally generated promising practices to identify and disseminate creative and inexpensive ways to provide a wider range of experiences for students.

The Appalachian Educational Laboratory used television, mobile classroom units, and learning packages to supplement small school educational offerings (Sher, 1977:110).

Two central themes were common to most of the recent small school improvement projects. First, the community, itself, was the basis for productive change. Second, good innovations successful in one school were seldon directly transferrable to other localities; changes had to be adapted to a particular part of the country. A problem with this specificity of innovation is that it still left a locality in isolation if care was not taken to provide options in the curriculum.

A final point is that:

> Each project has concluded that small school improvement is not predicated upon adoption of successful large school practices. Rather, there is common agreement that there needs to be invented a new kind of educational program uniquely suited to the small school and its setting (Stutz, 1967:197).

CHANGE THEORY

A review of the literature on planned change was conducted in order to further amplify the intricacies of curriculum development. The purpose of this review was to develop a greater understanding of how organizations accept or reject changes.

Because of the great number of writings dealing with change, the writer attempted to choose those writings which pertained closely to small schools and implementation of changes in them.

Resistance to Change

Gerald Brunetti (1974:12), in an English Journal article, stated that he remained convinced that:

> Innovative ideas in education are principally circulated among a select group of educators and tested only briefly in a few "hip" schools, while the bulk of teachers and schools carry on just as they have for generations.

He went on to say that resistance to change came from political and social structures to some extent, but mostly from people's discomfort with the rapid rate of change and the challenge to an acceptable mode of behavior. This was true even when the status quo had become insufferable. That is, there were many teachers in the schools who genuinely desired to change, but did not (Geiser, 1972). The reason for this lack of action was usually

disapproval of peers when there was the possibility of deviation from standard norms and ways of operating.

There were many barriers to change. These included supposed and real consequences of the change. Gardner (1965) attributed many of the barriers to the minds of people. He noted that people often defended current practices by relating them to high moral principles. Nostalgia also played a part in this resistance. The good old days were very easy to emulate.

The fear of the unknown was a common, if unstated, deterrent to change (Geiser, 1972). There was often fear that the change would not be successful or that persons involved would be unable to successfully cope with change.

Proposing change, especially by a newcomer to the organization, shed aspersions on the adequacy of the members of the organization and their past performance (Geiser, 1972:31). This often was tied to the benefits of not changing for certain vested interests (Gardner, 1965:51).

Finally, it was just easier not to change. Innovation was hard work and often was not accepted because of that fact (Geiser, 1972).

Theories of Change

Being cognizant of the various barriers to change led several writers to propose a theory of change. Early theories of change centered on accurately defining the problem using the best analytic technique, and finding the optimum solution. Some observers contended, however, that changes were being proposed without regard for relevance, acceptance, or implementation (Zand and Sorenson, 1975:533).

A theory of change was then formulated, centered on the belief that personality differences between the client system and the change managers, primarily in their cognitive styles, were obstructing change (Huysman, 1970). Thus, for a time, change managers attempted to reconcile these cognitive styles.

Theories of behavioral scientists viewed change as a complex, general social process with many subactivities. Examples of identified subactivities were initiators of change, level of trust, quality of decision to change, techniques of diffusion, and organizational methods of inducing change (Zand and Sorenson, 1975:53).

Because the problem centered and behavioral centered theories focused too much on one or another aspect of change without synthesizing the many interacting elements, it was desirable to produce a theory which could consider all the relationships involved.

Kurt Lewin (1974) conceptualized change as a process with three phases: (1) unfreezing--behavior that increases the receptivity of the client system to a change in the balance of social forces; (2)moving--altering the magnitude, direction, or number of driving and resisting forces; and (3) refreezing--reinforcing the new social equilibrium. Lewin also suggested that an increase in driving forces to induce change may cause an increase in resisting forces, the net effect being no change and greater tension.

Models of Change

Just as the theory of change evolved, so, too, had several models of change evolved. Rogers (1962) discussed adoption and diffusion as the two basic steps in the spread of new ideas. In the adoption process, he identified five discrete stages: (1) awareness during which people come to know about an idea, (2) explore its potentialities and evince an interest in it. Through discussion with others, visitations, observations, and other means, they (3) evaluate the idea for its utility to them. After a favorable evaluation, a (4) trial period takes place, and after successful trial, the process culminates in (5) adoption of the innovation (Hughes and Achilles, 1971:841).

Diffusion is the process through which the innovation gains acceptance and implementation in other systems or subsystems. Diffusion takes place at varying speeds depending upon the inclination to change on the part of potential client systems. Demonstration and dissemination could speed up this process. The person who demonstrates and disseminates has come to be called a change agent (Hughes and Achilles, 1971).

The Rogers model, however, had limitations in its use by change agents. It did provide a way of seeing change as a process, but it really did not provide a clear guide to action (Hughes and Achilles, 1971).

The Guba-Clark model (1967) contained a higher degree of specificity, and used with insight, may have suggested certain kinds of activity at various stages in the process. This model offered an incisive view of the change process. By using the conceptual approach to analysis of change provided by it, the change agent could develop an operationally defined role, ascertain where and how to enter the process, and determine the necessary strategies.

The Guba-Clark model consisted of the following steps:

1. Research--to advance knowledge, provide the basis for invention.
2. Invention--to formulate a new solution to problems; produces invention.

3. Design--to order and systematize the components of the solution; engineers and packages invention.
4. Dissemination--to create awareness among practitioners; informs about invention.
5. Demonstration--to provide opportunity to examine and assess invention; builds conviction.
6. Trial--to familiarize and assess specific application; tries out invention in specific situation.
7. Installation--to fit to individual situation; operationalizes invention in specific institution.
8. Institutionalization--to assimilate as part of the system; establish invention as part of non-going program; non-innovation (Hull, 1974;35).

If a teacher, for example, were in the design phase of the change process, the change agent knew from the model that his efforts should be directed next toward dissemination, then to demonstration, and so on.

The final change model reviewed was that of Havelock (1973). In this model, the role of the change agent was more completely acknowledged than in the Guba-Clark model, and was actually incorporated into the model.

According to Havelock (1973), the change agent, regardless of his status within or without the organization, could act in one of four roles: (1) The catalyst who overcomes status quo inertia and pressures the system to be less complacent and begin to solve its problems. (2) The solution giver who has a solution and wants others to adopt it. (3) The process helper who shows the client how to proceed in assessing and adopting a solution. (4) The resource

linker who brings people together and helps them locate, and best use resources inside and outside of their own system.

Havelock (1973:10) suggested four main points about choosing a change agent role:

1. The four primary change agent roles are not mutually exclusive.

2. The change agent can be effective either as an insider or an outsider.

3. The change agent can be effective as a line or staff person.

4. The change agent can be effective whether working from above or below.

With these points in mind, Havelock (1973) described six stages in the change process:

Stage I. Building a relationship between the change agent and the client.

Stage II. Once established in the client system, the change agent must determine if the client has been able to articulate his needs as problems (diagnosis).

Stage III. Acquiring of relevant resources to the problem.

Stage IV. Choosing the solution from a range of acceptable alternatives.

Stage V. Gaining acceptance by describing and demonstrating the solution to the client.

Stage VI. Stabilization and self-renewal by helping the client system to become its own change agent.

Although the models herein described depict the change process in varying degrees of specificity, there was a growing body of literature that went one step further and provided lists of axioms for the person with change agent responsibilities.

Axioms of Change

Most writers on change managed to set forth a few clearly stated observations or rules for the implementation of change. In this part of the review, representative samples from several authors are presented.

Orlosky and Smith (1972:413-14) provided a set of conclusions that are "based on a combination of past experiences, current theories, and analysis of all aspects of the field of education."

They summarized their conclusions by saying:

1. Changes in methods of instruction are apparently more difficult to make successfully than changes in curriculum or administration.
2. Changes in instruction are most likely to originate within the education profession....Successful changes in curriculum can originate either within the profession or from the outside.
3. Efforts to alter the total administrative structure....are likely to be unsuccessful.

In a monograph on the administration of change in schools, Owens and Steinhoff (1976:34) emphasized the importance of financial support, training, and close supervision:

1. Change in schools is positively related to financial support.
2. Change in schools is dependent upon in-service training designed to constantly improve the professional competence of teachers.
3. Change can be effected through meticulous close supervision of teachers designed to improve their skills on the job and to be sure that they follow correct instructional procedures.

Expansion of the theme that people, and most particularly the school principal, are important to change was found in this set of axioms:

1. Given certain conditions, the principal is the most effective change agent.
2. Individuals hold different goals. Change is facilitated if individual and group goals coincide.
3. People change more easily when the change helps them solve a problem real to them.
4. People improve when they feel they are working in a situation which allows them freedom of trial.
5. Individual resistance should be assessed and dealt with on an individual basis.
6. Educators are busy people and in general change adds to their burden. A change agent should make every effort to lighten that burden.
7. Change should be piecemeal in priority order rather than in complete overhaul style (Tye, 1970:41-50).

Finally, the most exhaustive list of axioms found by the writer was presented by Zaltman, et al., (1977). It was interesting to note that of the three hundred axioms listed, each dealt with the change

agent and his relationship to the internal and external forces interacting with people in the client organization. Three observations from this work point out the foundation of all planned change:

1. Other things being equal, teachers will welcome changes that they believe will increase their achievements with students.
2. The project should accord with values and ideals that have long been acknowledged by the participants.
3. Planned change cannot occur unless the organizational membership are aware of the need for change (1977:331).

This final point occurred in the literature and underscored the idea that planned change cannot be taken for granted, but rather it is an intricate process requiring the utmost in preparation and planning for success.

SUMMARY

The review of literature discussed four main topics: (1) Characteristics of Small and Rural Schools, (2) Characteristics of Small School Curriculum, (3) Small School Improvement Projects, and (4) Change Theory. The aim of the review was to examine current thoughts and research on smaller schools with a particular emphasis on curriculum development in these schools.

Characteristics of Small and Rural Schools

This section reviewed literature definitions, statistics,

quality, strengths, and weaknesses of small schools. Various definitions of small schools were presented with a Montana study by Barnes (1948) using 150 as the upper enrollment limit. A study by Broady and Broady (1974) suggested more than one teacher per grade, but no more than two teachers per grade in elementary schools, and no more than fifty pupils per grade in secondary schools.

The number of small schools had gradually been declining, although it was believed that many small schools would continue to exist (Sybouts, 1970). The percentage of small schools had declined nationwide from 26.7 per cent of the total in 1930 to 11.7 per cent in 1952. In a study by Ford (1959), 42 per cent of all high schools enrolled fewer than two hundred students.

A large body of literature discussing small school quality and comparing it to large schools was available. Most often, large school-small school comparisons were unfavorable. Several writers said small schools were less efficient, underfunded, "drab and monotonous" (Voelker and Ostenson, 1970:25), and out of date. One writer indicated that studies reaching such conclusions may cause small school districts to be defensive or ashamed of being out of date and out of the mainstream of American culture (Sher, 1977:104).

Strengths of small schools were also discussed in literature. Mainly, these strengths were based on the human element and required

that potentials for human interactions be met. These potentials were centered around closeness of all involved--parents, teachers, administrators, school trustees--to the classroom and instruction (Sturges, 1974).

Small school weaknesses were listed in nearly every report on small schools. High cost, underfunding, heavy teacher workload, coupled with less training, and weak, unvaried curricula were major complaints.

Characteristics of Small School Curriculum

The small school curriculum had been viewed as more limited than that of urban schools. Part of the problem had been emulation of urban practice. This was strengthened by a Montana study indicating large and small school teachers subscribed to the same curriculum ideals (Hertz, 1972).

The smaller number of offerings also had a bearing on accreditation. This was evidenced by fewer applications for membership in the Southern Association of Schools and Colleges (Wilson, 1966). Carleton (1966), in a discussion of accreditation standards and what makes a good school, concluded that larger staffs can only lead to better educational quality.

Although of more limited scope, the small school curriculum was successful in the areas of pupil-teacher interaction and in

providing humanistic education (Cohodes, 1971). This was due, in part, to less bureaucracy and more responsiveness to the community being served by the school.

Opportunity for participation by a higher percentage of students and a greater sense of responsibility toward school activity participation was also reported in one study (Barker and Gump, 1974).

Small School Improvement Projects

Six major adaptations that improved small schools were cited by Sturges (1974). These included development of shared services, addition of courses using new technology, flexible scheduling, development of empathy for the learner, development of community relationships for problem solving, and maximum utilization of resources.

The three major modes of delivery of these adaptations were outside agencies, the schools themselves developing proposals, and the regional education laboratories.

An early project was the Berea Project which infused trained professionals into target schools. These professionals utilized volunteers and worked in the communities to better all aspect of rural life. Other projects which used the outside-agency approach were the Alaska Rural Schools Project and the Texas Small Schools Project.

The Experimental Schools Program utilized proposals from within target schools under federal contract to plan their own improvements.

The Northwest and Appalachian Regional Educational Laboratories approached small school improvement through utilization of modern technology, hardware, and software.

It was found that the most successful small school improvements required a community basis, that few innovations were directly transferrable between schools, and that unique small school practices must be developed rather that adapting successful large school practices.

Change Theory

Change theory was studied to determine how and why organizations accept or reject change and to amplify some of the intricacies of curriculum development.

Barriers to change found in the literature included the political and social structure of organizations, the supposed and real consequences of change, and ease of not changing as compared to the hard work of effecting a change. Because there were many barriers to change, several authors had developed theories of change.

Early theories of change centered on defining the problem or

differences in perception between the client and change management systems. Contemporary theories of change dealt with the social process and the subactivities of inducing change. Lewin's theory (1947) became the basis of most change models. It dealt with unfreezing resistance to change, moving the resisting and driving forces, and refreezing the forces after the change is accepted.

Several models of change had evolved, essentially from the Lewin model. Rogers (1962) postulated a five step process: (1) awareness, (2) interest, (3) evaluation, (4) trial, and (5) adoption. The Guba-Clark model (1967) included eight steps: (1) research, (2) invention, (3) design, (4) dissemination, (5) demonstration, (6) trial, (7) installation, and (8) institutionalization. The model proposed by Havelock (1973) included a six step process: (1) building a relationship, (2) diagnosis, (3) resource acquisition, (4) choosing a solution, (5) gaining acceptance for the solution, and (6) stabilization and self-renewal. Each step in the model required a high degree of understanding and skill on the part of the change agent.

Finally, the growing body of change axioms was reviewed. This literature consisted of lists of conclusions which specifically dealt with methodology for the change agent.

Chapter III

PROCEDURES

This chapter describes the procedures used to conduct the study. Because the study was a determination of the status of curriculum development practices in smaller Montana school districts, the procedures were designed to gather information and report it in descriptive fashion.

This chapter reports the following topics:

1. The Population Description
2. The Method of Collecting Data
3. The Survey Sample
4. The Statistical Hypotheses
5. The Analysis of the Data

THE POPULATION DESCRIPTION

The population of this study was the sixty-four third class school districts operating instructional programs in grades K-12 or 1-12 (some schools did not have kindergartens) in Montana during the 1977-78 school term. These districts are listed in Table 1.

Table 1

Population School Districts

Absarokee	Frazer	Kremlin-Gildford	Rosebud
Alberton	Froid	Lambert	Roy
Antelope	Fromberg	Lavina	Rudyard
Bainville	Gardiner	Lima	Reed Point
Belfry	Geyser	Melstone	Ryegate
Box Elder	Grass Range	Moore	Saco
Brady	Harrison	Noxon	St. Regis
Broadview	Hays-Lodge Pole	Outlook	Savage
Brockton	Highwood	Park City	Turner
Clyde Park	Hingham	Peerless	Westby
Custer	Hinsdale	Plevna	West Yellowstone
Denton	Hobson	Power	Whitewater
Dodson	Inverness	Pryor	Willow Creek
Drummond	Joliet	Rapelje	Wilsall
Ekalaka	Joplin	Richey	Winifred
Flaxville	Judith Gap	Roberts	Winnet

THE METHOD OF COLLECTING DATA

Fall Accreditation Reports

The Fall Accreditation Reports, which were self-reports submitted by the school district to the Montana Office of Public Instruction, were reviewed for the academic years 1977 and 1978. The specific information gathered from these reports was a listing of innovative practices reported by each district and self-reported deviations from accreditation standards that dealt with the curriculum development process. The specific sections of the Standards for Accreditation of Montana Schools (1976:20 & 28) were:

310. Curriculum: High School and Junior High School

311: Curriculum Improvement
Teachers, supervisors, and administrators shall plan together the inservice programs for curriculum development and/or instructional planning.

320. Curriculum: Elementary

322: Basic instructional course material or textbooks in the fundamental skill areas of language arts, mathematics, science, and social studies must be reviewed by school district personnel at intervals not exceeding five years. All instructional materials must be sequential and, in addition, must be compatible with previous and future offerings.

324: Curriculum Improvement
Teachers, supervisors, and administrators shall plan together the inservice programs for curriculum development and/or instructional planning.

Demographic and personal data concerning number and names of certified teachers and administrators was also collected from the reports. This information was used to assist in the development of the sample of teachers and administrators to receive the mailed questionnaire.

Accreditation Letters

The accreditation letters sent by the Office of Public Instruction to the population school districts for the years 1972-1978 were reviewed. These letters notified the respective school districts of their accreditation status for the particular year and, more importantly, for this study at least, listed cited deviations from the Standards for Accreditation of Montana Schools (1976) upon which the accreditation status was based.

Mailed Survey Sample

A mailed questionnaire was developed and sent to all administrators in the population districts and to a sample of teachers in those districts. The questionnaire contained thirteen main questions with check lists and rating scales for fixed responses. Free responses were also possible with "other (specify)" and requests for comment spaces given for each question. A copy of the questionnaire appears in Appendix B.

Development of the Questionnaire

Items for the questionnaire were developed by the researcher based upon his review of the literature and experience in education. These items were submitted to a sample of twenty-four classroom teachers who completed the questionnaire and a supplemental form with questions about the content and format of the questionnaire. This form was obtained from the Bureau of Educational Research and Field Services of the Montana State University College of Education, where it had been used in several studies. The results of this questionnaire were incorporated into the final mailed instrument. (See Appendix C).

Reliability

Prior to actual use, the instrument was field tested to determine reliability using the test-retest method suggested by Shaw and Wright (1967). This was done by administering the instrument by mail to a sample of thirty teachers from small school districts similar to the population schools, but in slightly larger communities (school districts of the second class). A second administration followed approximately twenty days later. Twenty-four pairs of responses were used to calculate the correlation between the first and second administrations. The correlations for various items ranged from .80 to .88, which compared favorably with the .75 suggested as

a lower limit of acceptability (Shaw and Wright, 1967).

Validity

The content validity of the items was judged to be acceptable based on their submission to several colleagues of the researcher and to professors at Montana State University. The items were corrected according to the judgment of the panel, a procedure endorsed by Kerlinger (1973).

Administration of the Instrument

The instrument was mailed to all administrators and a selected sample of teachers in the population school districts. It was accompanied by a cover letter and a return envelope. (See Appendices A and B). It was planned to follow up the first mailing with a second mailing in three weeks, but the response rate was more than 80 per cent, so there was no follow up mailing. This was decided because it was very late in the school term, a second mailing may have required new address data, and the minimum response rate of 70 per cent suggested by Good (1966) was exceeded.

THE SURVEY SAMPLE

Information was collected from all schools in the population in the form of reviewing the Fall Accreditation Reports and the

accreditation letters. It was necessary, however, to design a sampling technique for administration of the mailed survey questionnaire. This section outlines that procedure.

The mailed questionnaire was used with two specific groups of professionals working in the population school districts:

1. All administrators received the survey instrument. This group contained ninety persons. Seventy-six, or 84 per cent, responded.

2. A sample of 120 teachers was selected to receive the survey instrument. A listing of all teachers was constructed by contacting clerks of the local districts and asking them to list the name, address, assignment, and number of years of experience in the district for each of their teachers. Ninety per cent of the clerks responded. Fall Accreditation Reports were used to verify the clerks' responses and complete the 10 per cent missing. The resulting list was composed of 924 persons.

The teachers' list was stratified according to grade level of assignment (elementary, secondary, or dual assignment) and experience in the district (beginning, experienced non-tenured, and tenured). Experience was chosen as a method of stratification because it is related to innovativeness (Carlson, et al., 1965). Assignment was chosen because in the population schools there are several elementary

teachers who are similarly trained, have similar assignments, and can easily share their concerns with others having similar problems. Secondary and dual assignment teachers are usually one-of-a-kind and often are the only teacher in a given teaching area. Thus, it would seem that they would have different views toward curriculum problems due to the lack of others with which to interact. This stratification was used to assist in determining the representativeness of the sample.

The stratification procedure produced nine categories. They are listed with the total number in each, the proportion of the total group (and of the sample) each represented, and the number of respondents from each group in Table 2.

Table 2

Stratification of Teacher Population

Stratum	No. in population	Proportion	No. in sample	No. of respondents
Elementary Beginning	93	10.0	12	9
Elementary Experienced, non-tenured	94	10.2	12	11
Elementary Tenured	121	13.1	16	11
Secondary Beginning	140	15.1	18	14
Secondary Experienced, non-tenured	156	16.9	20	20
Secondary Tenured	161	17.4	21	18
Dual Assignment Beginning	56	6.1	8	5
Dual Assignment Experienced, non-tenured	57	6.2	7	7
Dual Assignment Tenured	46	5.0	6	6
Totals	924	100.0%	120	101

Based on the proportions of each stratum, a total sample of 120 persons was selected to receive the questionnaire. This sample size was chosen because it would provide a minimum cell size of five for each cell in a X^2 goodness of fit test if a minimum of half the sample responded. This was important primarily to avoid the need to use Yate's correction for cell sizes smaller than five (Ferguson, 1971:78). The goodness of fit was calculated using the expected values derived from the proportion found in the total group for each category. The null hypothesis that there was no significant difference between the total group and the respondents was accepted. This test was calculated as in Table 3.

Table 3

Respondent Distribution Goodness of Fit to Sample Distribution

Stratum	f_o	f_e	f_o-f_e	$(f_o-f_e)^2$	$\frac{(f_o-f_e)^2}{f_e}$
Elementary Beginning	9	10	-1	1	.100
Elementary Exp., non-tenured	11	10	1	1	.100
Elementary Exp., tenured	11	13	2	4	.308
Secondary Beginning	14	15	-1	1	.067
Secondary Exp., non-tenured	20	17	3	9	.529
Secondary Exp., tenured	18	19	1	1	.053
Dual Assignment Beginning	5	6	-1	1	.167
Dual Assignment Exp., non-tenured	7	6	1	1	.143
Dual Assignment Exp., tenured	6	5	1	1	.200
Sums	101	101			1.667

Calculated X^2=1.667; Critical value=2.73; Degrees of freedom=8;

Ferguson suggested that this method be used as a test for the representativeness of the sample (1971:177).

THE STATISTICAL HYPOTHESES

2 1. There is no significant difference in the amount of time teachers and administrators spend in curriculum development activities.

3 2. There is no significant difference in the curriculum development assistance desired by teachers and administrators.

4 3. There is no significant difference in administrator and teacher concerns about curriculum development.

5 4. There is no significant difference in the curriculum development processes that generate greatest teacher and administrator satisfaction.

6 5. There is no significant difference in the processes that are perceived by teachers and administrators as being most effective.

THE ANALYSIS OF THE DATA

The data were arranged in appropriate tables. The hypotheses were tested by constructing contingency tables (2 x N) and comparing administrator and teacher frequencies using the X^2 test of independence (df=N-1).

The level of significance chosen for the statistical test was

α=.05. This level of significance was said to provide an adequate balance between chance and practical certainty in making a wrong decision (Kerlinger, 1973).

The questions of the study not addressed by the statistical hypotheses were answered by subjectively drawing conclusions from the tables and narrative data. The comments generated by the questionnaire were directly quoted from the questionnaire. When several comments conveyed essentially the same message, the most representative comment was used.

SUMMARY

The procedures used in this study were conducted as an investigation to study the status of school curriculum development practices in smaller Montana school districts.

The population of this study was the sixty-four third class school districts located throughout Montana that offered K-12 or 1-12 programs. These districts, by statutory definition, had populations not exceeding one thousand.

Data collection in this study utilized a review of Fall Accreditation Reports submitted to the Office of Public Instruction by population school districts for the years 1977 and 1978, a review of accreditation status letters sent to the school districts by the

Office of Public Instruction for the years 1972-1978, and a mailed survey sent to all administrators in the population schools and to a sample of teachers in those schools.

The Fall Accreditation Reports for each district were reviewed to determine the number and type of innovative curriculum practices adopted as reported by the school districts, and to note if deviations from the Standards for Accreditation of Montana Schools (1976) were reported by the districts. Information with which to compile the mailed survey mailing list was also taken from the Fall Accreditation Reports.

The accreditation letters were reviewed to determine the cited deviations of the school districts from the Standards for Accreditation of Montana Schools (1976) upon which the accreditation was based.

A mailed survey was sent to all population school administrators and to a sample of teachers. The questionnaire was developed by the researcher after a review of the literature. It was validated by using a panel of expert reviewers and tested for reliability by using the test-retest method. The teacher sample was selected on the basis of a stratification utilizing teacher experience in their respective districts (beginning, experienced non-tenured, and tenured) and grade level of assignment (elementary, secondary, and

dual assignment). The return distribution was tested against the total group of teachers using a X^2 test of goodness of fit to determine representativeness of the returns. The null hypothesis that there was no significant difference in the distributions was accepted.

The following statistical hypotheses were tested using a X^2 test of independence:

1. There is no significant difference in the amount of time teachers and administrators spend in curriculum development activities.

2. There is no significant difference in the curriculum development assistance desired by teachers and administrators.

3. There is no significant difference in administrator and teacher concerns about curriculum development.

4. There is no significant difference in the curriculum development processes that generate greatest teacher and administrator satisfaction.

5. There is no significant difference in the processes that are perceived by teachers and administrators as being most effective.

The data collected in this study was arranged in tables showing raw counts and percentages. Free response data and representative comment was presented in narrative form. Analysis of the data was through an interpretation of the tables presented for the questions not addressed by statistical hypotheses. The

statistical hypotheses were analyzed using a X^2 test of independence (α=.05) on contingency tables constructed using response frequencies from the administrator and teacher questionnaire returns.

Chapter IV

PRESENTATION OF THE DATA

The data presented in this report was obtained from two sources: (1) Fall Accreditation Reports and accreditation letters sent to schools by the Office of Public Instruction, and (2) responses to a mailed questionnaire sent to all administrators and a sample of teachers in the population school districts.

This chapter uses tables, narrative, and statistical analyses to present the data collected.

FALL ACCREDITATION REPORTS AND LETTERS

The Fall Accreditation Reports for the years 1976-1978 were reviewed. These were reports filed with the Office of Public Instruction by the population school districts. These reports were completed by the district superintendent and asked, among other things, that the school's deviations from the Standards for Accreditation of Montana Schools (1976) be listed. They also asked for a listing of innovations or outstanding practices used in the school districts. Although these were self reports, only a sampling were validated by the Office of Public Instruction by on-site visitation. Each school's accreditation status was determined by reviewing the data in the report.

The accreditation process consisted of a review of the report by personnel in the Office of Public Instruction who compared it to a checklist. The completed checklist was used to arrive at a recommended accreditation status for the school which the Montana Board of Public Education affirmed. A letter stating that status and listing the deviations was sent to the school. In some cases, an on-site visitation to the school was made and a more complete checklist used. In 1977-1978 such visits were made to five of the population schools.

Fourteen of the population schools (22 per cent) listed innovations or outstanding programs on their fall reports. These included, among others, rotating class scheduling, modular scheduling, mini-courses, shared and multi-district vocational programs, and the addition of courses. One district reported use of a curriculum committee, and one reported the use of a faculty retreat to develop curriculum.

When asked to report deviations from standards, only two schools reported curriculum related deviations. One did not meet minimum course offerings required, and one reported no plan to review texts in basic areas every five years.

All of the five schools who received visitations, however, were cited for not having a philosophy and objectives statement and for not having a procedure to assess student needs and progress. It

should be noted that the checklists used by the Office of Public Instruction did not include reference to Standard 311, the only standard which pertained to secondary school curriculum development. Thus, there was no deviation reported for that standard. Only one deviation for Standard 322 was reported by an individual school, and the visitation checklist did not include it, effectively eliminating its validation during on-site visits.

CURRICULUM DEVELOPMENT STRATEGIES

The respondents to the questionnaire were asked to designate curriculum development strategies that were used in their school district by checking one or more items in an eleven item checklist. An opportunity was also given for each respondent to list other strategies not appearing on the checklist. There were 101 teachers and seventy-six administrators who responded to these items.

The strategy used most widely was the adoption of textbooks by individual teachers. More than two-thirds of the teachers (69.3 per cent) and one-third of the administrators (35.5 per cent) said this strategy was used in their school. This strategy ranked first among the teachers, but only third with the administrators. This data is summarized in Table 4.

Table 4

Curriculum Development Strategies Used by Respondents' School Districts

Strategy	Teachers %	Teachers Rank	Administrators %	Administrators Rank	Total %	Total Rank
Individual teachers adopt own textbooks	69.3	1	35.5	3	54.8	1
Changes are implemented to meet state accreditation standards	43.6	2	65.8	2	53.1	2
Periodic review of textbooks by teacher committee	29.7	4	68.4	1	46.3	3
Basal text is adopted	32.7	3	35.5	3	33.9	4
Curriculum guides are written by teachers in the district	29.7	4	28.9	5	29.4	5
Curriculum committee	18.8	6	23.7	6	20.9	6
Administration or board mandate curriculum	17.8	7	15.8	7	16.9	7
Parent advisory committee	8.9	8	14.5	8	11.3	8
Use outside consultants	5.0	10	10.5	9	7.3	9
Curriculum guides written outside the district	6.9	9	6.6	11	6.8	10
Student advisory committee	2.0	11	7.9	10	4.5	11

According to both teachers and administrators, the implementation of curriculum changes to meet state accreditation standards was quite important. Both groups designated this item as the second ranked strategy. Overall, the use of this strategy also ranked second with slightly more than half (53.1 per cent) of all respondents indicating its use in their schools.

The third and fourth ranked strategies were textbook related. Periodic review of textbooks by a teacher committee was mentioned by more administrators than any other strategy with 68.4 per cent indicating its use. This item ranked fourth in teacher responses, with 29.7 per cent of them choosing it. The adoption of a basal text ranked third in number of responses by both teachers (32.7 per cent) and administrators (35.5 per cent).

Curriculum guides written by teachers in the district was the next most frequently mentioned curriculum development strategy. This was chosen by 29.7 per cent of the teachers and 28.9 per cent of the administrators. The use of a curriculum committee ranked sixth when all responses were tabulated. This strategy was selected by 23.7 per cent of the administrators and 18.8 per cent of the teachers.

The remaining strategies on the list were selected by fewer than 20 per cent of the respondents. These included the mandating of

curriculum by administration or board, which ranked seventh in frequency of use for both teacher (17.8 per cent) and administrator (15.8 per cent) respondents. This was followed by parent advisory committee, which ranked eighth in frequency for both teacher (8.9 per cent) and administrator (14.5 per cent) respondents.

The strategy of using outside consultants was tenth in frequency of use for teachers (5.0 per cent) and ninth in frequency of use for administrators (10.5 per cent). It ranked ninth in overall response frequency with 7.3 per cent of all respondents mentioning its use. The use of curriculum guides written outside the district was mentioned by almost identical proportions of teacher (6.9 per cent) and administrators (6.6 per cent). Finally, the use of a student advisory committee was reported by 2.0 per cent of the teachers and 7.9 per cent of the administrators for an overall frequency of 4.5 per cent.

Throughout the list of strategies, rank order of frequency of use by teachers and administrators usually differed by only one or two ranks for each item, although the proportions of each group choosing particular strategies varied widely.

Representative comments concerning all the strategies used follow:

Teacher Comments

Teacher makes [text] selection with superintendent approval. I had talked to teachers in other schools and one had been on Billings' textbooks committee.

Actually not much time is spent on curriculum development.

Curriculum is left up to individual teachers; usually the teachers have to use textbooks already available in the classroom.

Teachers, counselors, and administrators discuss curriculum changes.

The superintendent generally makes up the curriculum. However, he does ask the teachers what electives they want to teach. Some teachers get three electives; however, I only get one.

Advisory board for my area helps me.

Small schools lack resource support.

Superintendent ordered texts with no teacher input.

I've taught in this district for 16 years and during that time various practices have applied. Sometimes a principal orders a set for the school and teachers may or may not like them. Poor overall planning.

Very old books are used in the system: Science, 1965; Social Studies, 1967; English, 1963.

Administrator Comments

Adoption is completed only after consultations with administrators and thorough examination of curricular requirements.

Teachers develop a loose, unwritten, and sometimes inconsistent curriculum.

Teachers and administrators and board meet to discuss curriculum and then choose texts. Also, teachers visit other schools before texts are chosen.

Curriculum is designed by teachers and administrators together.

Teachers and students have input informally in curriculum development.

We have on-going curriculum committee and subject areas are emphasized each year to co-ordinate a complete K-12 program.

Periodic review by teachers and administration with input from students.

TIME SPENT ON CURRICULUM DEVELOPMENT

Respondents were asked to estimate the number of school days or their equivalent that were spent by them on curriculum development activities during the 1977-78 school term. One hundred one teachers and seventy-two administrators responded to the question.

Of the teacher respondents, 7.9 per cent said no time was spent on curriculum development and evaluation, and 21.8 per cent indicated they spent less than one school day performing these tasks. One day or the equivalent was spent by 23.8 per cent of the respondents, and 26.7 per cent spent two to four days. Only 5.9 per cent of this group spent five to seven days on curriculum development, but a large number 13.9 per cent, said they spent more than seven days. Table 5 contains this data.

Table 5

Time Specifically Devoted to Developing and Evaluating Curriculum

Amount of Time	Teachers #	Teachers %	Administrators #	Administrators %	Total #	Total %
No time is spent	8	7.9	1	1.4	9	5.2
Less than one school day	22	21.8	7	9.7	29	16.8
One school day	24	23.8	15	20.9	39	22.5
Between two and four school days	27	26.7	34	47.2	61	35.3
Between five and seven school days	6	5.9	8	11.1	14	8.1
More than seven school days	14	13.9	7	9.7	21	12.1
Totals	101	100.0	72	100.0	173	100.0

The administrator responses followed a pattern quite different from that of the teachers. Only 1.4 per cent said no time was spent on curriculum development, 9.7 per cent spent less than one day, and 20.9 per cent spent one day. Nearly half of the administrator respondents, 47.2 per cent, spent two to four days, and 11.1 per cent said they spent five to seven days on curriculum development. More than seven days were spent by 9.7 per cent of the administrators.

Grouping all the responses resulted in 5.2 per cent saying they spent no time, 16.8 per cent less than one day, and 22.5 per cent a day on curriculum development. Two to four days were spent by 35.3 per cent and five to seven days were spent by 8.1 per cent. Nearly one-eighth, 12.1 per cent, said they spent more than seven days on curriculum development.

The hypothesis that there was no significant difference in the amount of time teachers and administrators spent on curriculum development activities was tested using a X^2 test of independence. This test was calculated by comparing the frequency that each category in the questionniare was checked by the teachers with the frequency of those checked by the administrators. Because of a small frequency in the first category, the first two categories were combined to eliminate the need for Yates' correction.

The calculated X^2 for the combined data was 13.75, well above the critical value of .71. Therefore, the null was rejected: Teachers and administrators did spend differing amounts of time on curriculum development and evaluation.

Representative comments which followed this questionnaire item are as follows:

Teacher Comments

> Last year we needed new social studies, so possibly three days were used. We didn't need a new series this year.
>
> Our curriculum committee meets and reviews texts and makes recommendations but have no encouragement that it will have any impact.
>
> Not desired by board or administration to change things.
>
> Due to meetings with parents, administrators, and other educators, at least two days are spent. Our school is also in a major revisal [sic] of its curriculum.
>
> I review mine all the time.
>
> No time is officially spent, but each teacher sets and reviews his own curriculum objectives.
>
> I usually rewrite course of study each year.
>
> Time is spent outside of school--no school time is devoted to this area.
>
> Developing and evaluating curriculum is an on-going process. Thus, it is really impossible to earmark time for curriculum improvement.
>
> More time should be spent on pre-school inservice (PIR) days.

Administrator Comments

Our school is on a five year adoption program. Each discipline area is reviewed and replaced every five years.

We are a small school and discuss it at length and often.

More time than indicated should be spent on developing and evaluating curriculum. In my capacity as principal, the extra load of three classes makes this difficult.

Teacher committee spends the time to study and recommend.

We have begun a lengthy study of scope and sequence and curriculum evaluation--a multiple year project.

We work after school an hour here and there.

This year we have met weekly. This pattern will continue next year.

CURRICULUM DEVELOPMENT ASSISTANCE DESIRED

Respondents were asked to designate the types of curriculum development assistance they would like to have. A checklist of eleven items was used, with one choice being that no assistance is desired and another providing an opportunity to write a response not listed on the checklist. One hundred one teachers and seventy-six administrators responded to this question. The data obtained is presented in Table 6.

Table 6

Curriculum Development Assistance Desired

Assistance	Teachers #	Teachers %	Administrators #	Administrators %	Total #	Total %
Access to updated library of curriculum materials	64	63.4	33	43.4	97	54.8
Instruction in curriculum development methods and strategies	48	47.5	26	34.2	74	41.8
More knowledge of national and state trends in my field	54	53.5	20	26.3	74	41.8
More funds for curriculum development	31	30.7	20	26.3	51	28.8
Evaluation by persons from outside the district	25	24.8	22	28.9	47	26.6
More teacher support for curriculum development	20	19.8	25	32.9	45	25.4
Released time during the school day	29	28.7	16	21.0	45	25.4
More assistance from Office of Public Instruction	24	23.8	18	23.7	42	23.7
University consultants	18	17.8	13	17.1	31	17.5
More administrator support	17	16.8	5	5.3	22	11.9
No assistance desired	6	5.9	5	6.6	11	6.2
Other	3	3.0	7	9.2	10	5.6
Respondents	101		76		177	

By far, the greatest teacher need identified was access to an updated library of curriculum materials. This was selected by 63.4 per cent. More knowledge of national and state curriculum trends was desired by 53.5 per cent of the teachers. Other needs included instruction in curriculum development strategies and methods (47.5 per cent), increased funding for curriculum development (30.7 per cent) released time for curriculum development during the school day (28.7 per cent), and evaluation of the curriculum by persons from outside the district (24.8 per cent). Use of university consultants (17.8 per cent), more administrative support for curriculum development (16.8 per cent), and more assistance from the Office of Public Instruction (23.8 per cent) were selected less often. Only 5.9 per cent indicated no assistance was desired.

The administrators also selected access to a curriculum library as their number one desire for help, although less than half, 43.4 per cent, chose it. More than a third (34.2 per cent) wanted instruction in curriculum development methods and strategies. Nearly the same number (32.9 per cent) wanted more teacher support for curriculum development. More funds for curriculum development (26.3 per cent), more assistance from the Office of Public Instruction (23.7 per cent), more knowledge of state and national trends (26.3 per cent), and evaluations by persons from outside the

district (28.9 per cent) were sought by administrators. Only 6.6 per cent said they needed no assistance and 9.2 per cent had other desires.

A statistical analysis of the teacher and administrator responses to this question was performed. The null hypothesis that teachers and administrators desired the same kinds of curriculum assistance was tested using a X^2 test of independence. The contingency table is shown in Table 7.

Table 7

Curriculum Development Assistance Desired
Contingency Table

Assistance	Teachers	Administrators
Released time during school day	29	16
Access to updated library of curriculum materials	64	33
University consultants	18	13
Instruction in methods and strategies	48	26
Knowledge of national and state trends	54	20
Assistance from Office of Public Instruction	24	18
Evaluation by persons outside the district	25	22
More administrator support	17	5
More teacher support	20	25
More funds	31	20
No assistance and other	9	12

Calculated X^2=18.29; Critical value=3.94; Degrees of freedom=10;

The critical value for ten degrees of freedom (α=.05) equals 3.94. Therefore, the null hypothesis was rejected: There was a significant difference in the kinds of curriculum development assistance wanted by teachers and administrators.

Teacher Comments

> If extra time would be given for the development of curriculum, I feel it should be followed through. So often, its something that is placed aside because it takes too long and is never done. In our case, we worked on the curriculum and evaluated it, but it seems worthless when nobody bothered to look at it and evaluate it.
>
> We order sample books, look them over individually, and meet after school until we make our choice.
>
> I feel very isolated in _____ as far as education is concerned and knowing what is going on elsewhere.
>
> I personally would like to have school time, in order to observe other schools in operation to see how their curriculum works.
>
> If a state curriculum advisor came this far, we'd all faint!
>
> Curriculum guides of any sort would be well received.

Administrator Comments

> Less bureaucratic interference. Bring it back to the local level.
>
> Would like students and teachers to provide more input.
>
> It is very difficult to obtain the time to do curriculum development without buying it.

Three funded extra PIR [pupil instruction-related] days to handle curriculum, etc.

State seminar for LEA boards to specifically relate to accreditation standards.

Released time poses a problem if the entire staff is to meet and call it a school day.

Released time during the summer (funding).

INFLUENCES ON CURRICULUM

The questionnaire asked respondents to designate the degree to which each item on a checklist influenced curriculum change in the respondent's school district. The five response modes to be selected were that the item (1) has a great deal of influence, (2) has some influence, (3) has very little influence, (4) has no influence, and (5) not sure.

The average response for each item was calculated. There were 101 teacher respondents and seventy-six administrator respondents, although not every respondent scored every item on the list. The results are displayed in Table 8.

Table 8

Influences on the Curriculum - Average of Responses to a Five Point Scale

Curriculum Influence	Average of Responses		Total
	Teachers	Administrators	
The classroom teacher	1.60	1.43	1.53
The administrator(s)	1.71	1.37	1.60
State accreditation standards	1.81	1.70	1.76
Back to basics movement	2.32	2.56	2.42
State legislation	2.53	2.31	2.43
School board	2.50	2.44	2.48
Regional accreditation standards	2.33	2.77	2.52
National educational trends	2.69	2.86	2.77
Federal legislation	2.66	2.59	2.63
Students	2.76	2.59	2.69
What neighboring schools do	2.97	2.75	2.88
Parents	2.89	2.89	2.89
Local teacher organization	3.14	2.98	3.08
Visitation by State Office	3.18	3.16	3.17
Colleges	3.20	3.16	3.19
Formal school advisory groups	3.36	3.25	3.31
Businessmen in community	3.64	3.34	3.52
Churches in community	3.62	3.51	3.58
Average of all responses	2.69	2.62	2.66

Key: 1=has a great deal of influence; 2=has some influence; 3=has very little influence; 4=has no influence; 5=not sure;

The classroom teacher (response average 1.53) and the administrator (response average 1.60) were seen by the respondents as being the greatest influences on curriculum in their schools. Not surprisingly, teachers saw themselves as most influential and administrators saw themselves as most influential, but not by as wide a margin. The third greatest influence on curriculum as perceived by both groups were state accreditation standards (1.76). These were the only three influences on curriculum that had response averages less than 2. This indicated a tendency toward thinking of them as having a great deal of influence on the curriculum.

The back to basics movement (2.42), state legislation (2.43), the school board (2.48), and regional (Northwest) accreditation standards (2.52) were reported by respondents generally as having some influence. Although there was not exact agreement on the importance of these, both groups listed them within one ranking of each other. The only exception to this was regional accreditation standards, which had the fourth lowest average according to teachers and was placed tenth by administrators.

Following these were five more response options which yielded average responses below 3.0 and would indicate some degree of influence on school curriculum. These items were: national educational trends (2.77), federal legislation (2.63), students (2.69),

what neighboring schools are doing (2.88), and parents (2.89). With the exception of the parents, who were rated exactly the same by teachers and administrators, there was little agreement in the averages for these items. In fact, it was these items which provided the largest differences in the ratings by the two groups.

The group of items whose response averages were 3.0 or greater included the local teacher organization (3.08), visitation by staff from the state office (3.17), businessmen in your community (3.52), and churches in your community (3.58). This group, which had little or no influence on curriculum, according to the respondents, elicited high agreement in ratings between teacher and administrator respondents.

Respondents were also asked to name the one item in the list of influences on curriculum that they felt was most influential. Only ninety-seven teachers and sixty-three administrators responded to this item. The pattern of responses was very similar to the preceding rating scale. The classroom teacher ranked first in amount of influence with 44.4 per cent selecting that item, followed by administrators selected by 37.5 per cent of the respondents. State accreditation standards were chosen as being the most influential on curriculum by 5.6 per cent of the respondents. No other item received more than 2 per cent of the responses.

A similar question asking respondents to designate the item of least influence on their school's curriculum was asked. The responses were more balanced than the previous question, but similar to the rating question results. Churches and businessmen were named most often as least influential, with 21.9 and 13.5 per cent, respectively, choosing them. These were followed by the influence of neighboring schools (12.3 per cent), formal advisory groups (7.7 per cent), regional accreditation standards (7.7 per cent), the local teacher organization (6.5 per cent), and state accreditation standards (6.5 per cent). All but two of the other items on the rating list were mentioned a varying number of times, but less than 6 per cent of the respondents chose any one of these items. The two items not mentioned as least influential were teachers and administrators.

The responses to the last two questionnaire items are summarized in Table 9, followed by representative comments made by the respondents concerning influences on the curriculum.

Table 9

Items Having Most and Least Influence on the Curriculum

Item	Most Influential #	Most Influential %	Least Influential #	Least Influential %
The classroom teacher	71	44.4	0	0.0
The administrator	60	37.5	0	0.0
State accreditation standards	9	5.6	10	6.5
School board	3	1.9	4	2.6
Students	2	1.3	4	2.6
State legislation	1	0.6	1	0.6
National educational trends	0	0.0	1	0.6
Back to basics movement	1	0.6	4	2.6
Visitation by State Office	0	0.0	4	2.6
Federal legislation	0	0.0	5	3.2
Parents	1	0.6	6	3.9
Colleges	0	0.0	8	5.2
Local teacher organization	2	1.3	10	6.5
Regional accreditation standards	3	1.9	12	7.7
Formal school advisory groups	3	1.9	12	7.7
What neighboring schools do	1	0.6	19	12.3
Businessmen in your community	1	0.6	21	13.5
Churches in your community	1	0.6	34	21.9

Teacher Comments

Parents want a babysitting service--they raise a fuss if you change anything; any subject which may lower a student's grade is not taught or overlooked for that student.

Teachers are allowed to offer elective courses; however, the superintendent makes the final decision. Also, the students have no say in the curriculum offerings. The school board offers little input into this area.

In our area, the curriculum development process consists of what the individual teacher can stress in his or her most profound area of education. The educational trend in Montana is a major factor, such as exploring major resources found in the area.

We keep up to date on trends by membership in subject area organizations, attending summer sessions, and feedback from graduates attending college.

Curriculum changes come through individual teachers in individual classrooms.

Administrator Comments

We surveyed all high school students and all elementary and high school students' parents to assess the curriculum base.

There is no real teacher organization and churches say next to nothing about school curriculum.

SATISFACTION WITH CURRICULUM DEVELOPMENT STRATEGIES

The questionnaire asked respondents to rate nine curriculum development strategies on a five point scale: 1=provides a great deal of satisfaction; 2=provides some satisfaction; 3=provides no satisfaction; 4=results in negative feelings; 5=is not used in my district. All responses were tabulated. The average rating for each item was calculated. Items rated 5 (is not used in my district) were not included in the average, but were summarized separately.

One hundred one teachers responded to this questionnaire item. The curriculum strategy which provided greatest satisfaction to the teachers was the review of textbooks by a teacher committee. This strategy received an average rating of 1.79. Another strategy related to textbooks, individual teachers adopting their own texts, was rated next by teachers with an average of 1.84.

These were followed by: curriculum guides are written by teachers in the district (2.05), school curriculum committee (2.14), consultants work with teachers and/or administrators (2.18), and parent advisory committee for curriculum (2.28).

The least satisfying procedures, according to teachers, were student advisory committee for curriculum (2.73), curriculum guides written outside the district are adopted (2.80), and district

administrators mandate curriculum (2.93).

Each of the strategies in the list had several or more respondents who said that procedure was not used in their school. The strategy reported as not used by the most teacher respondents was parent advisory committee for curriculum with sixty-nine persons saying it was not used in their district. This was followed by student advisory committee (65), school curriculum committee (58), curriculum guides written outside the district are adopted (54), and use of consultants (49). The teacher data indicated that adoption of texts by individual teachers (7) review of textbooks by teacher committee (28), and administrative mandate (31) were the most widely experienced strategies.

The seventy administrators responding to the item rated review of textbooks by a teacher committee as the most satisfactory with an average of 1.77. Curriculum guides written by teachers in the district (1.96), and school curriculum committee (1.98) were also rated very high by administrators. As curriculum development strategies, adoption of texts by individual teachers (2.20), use of consultants (2.22), and the parent advisory committee (2.45) were rated approximately the same by administrators as by teachers.

The least satisfying strategies for administrators were district administrators mandating curriculum (2.57) and curriculum

guides written outside the district (2.87).

Administrators also indicated non-use of every strategy in a few schools. Review of textbooks by teacher committee, not used by six respondents, and curriculum guides written by teachers in the district seemed to be the most widely used strategies as reported by administrators. The responses to this questionnaire item are summarized in Table 10.

Table 10

Satisfaction with Various Curriculum Development Strategies - Average of Responses to a Five Point Scale

Strategies	Teachers Ave.	Teachers # not using	Administrators Ave.	Administrators # not using	Total Ave.	Total # not using
Review of textbooks by teacher committee	1.79	28	1.77	6	1.78	34
Curriculum guides written by teachers in district	2.05	35	1.96	10	2.01	45
Individual teachers adopt their own texts	1.84	7	2.20	17	2.02	24
School curriculum committee	2.14	58	1.98	22	2.05	80
Consultants work with teachers and/or administrators	2.18	49	2.22	18	2.32	67
Parent advisory committee for curriculum	2.28	69	2.45	28	2.38	97
Curriculum guides written outside district adopted	2.80	54	2.87	26	2.47	80
Student advisory committee for curriculum	2.73	65	2.59	33	2.64	70
District administrators mandate curriculum	2.93	31	2.57	14	2.79	45
Average of all responses	2.30	--	2.39	--	2.27	--

Key: 1=provides a great deal of satisfaction; 2=provides some satisfaction; 3=provides no satisfaction; 4=results in negative feelings; 5=is not used in my district;

Although the responses of teachers and administrators seemed to be very similar, some differences were apparent. A X^2 test of independence was computed, using a contingency table to test the null hypothesis that there was no significant difference in the two sets of responses (α=.05). Table 11 displays the contingency table.

Table 11

Contingency Table of Total Scores Pertaining To Satisfaction with Selected Curriculum Development Strategies

Strategies	Teachers	Administrators
Review of textbooks by teacher committee	184	105
School curriculum committee	187	178
Parent advisory committee for curriculum	260	194
Student advisory committee for curriculum	264	161
Individual teachers adopt their own texts	202	189
Curriculum guides written outside district are adopted	201	132
Curriculum guides written by teachers inside district are adopted	311	206
District administrators mandate curriculum	310	195
Consultants work with teachers and/or administrators	217	160

Calculated X^2=23.66; Critical value=2.73; Degrees of freedom=8;

The calculations of a X^2 of 23.66, df=8, exceeded the critical value of 2.73. Thus, the null hypothesis was rejected: There was a significant difference in the degree of satisfaction provided by curriculum development strategies.

A related questionnaire item asked respondents to select the one item from the list of curriculum strategies that provided the most satisfaction to the respondent. Teacher and administrator responses varied quite markedly. Their responses are summarized in Table 12.

Table 12

Curriculum Strategies that Provide the Most Satisfaction

Strategies	Teachers #	Teachers %	Administrators #	Administrators %	Total #	Total %
Individual teachers adopt their own textbooks	43	50.0	4	7.1	47	33.0
Periodic review of textbooks by a teacher committee	15	17.4	24	42.9	39	27.5
Curriculum guides are written by teachers in district	9	10.5	11	19.6	20	14.1
Consultants work with teachers and/or administrators	7	8.1	6	10.7	13	9.2
School curriculum committee	6	7.0	6	10.7	12	8.5
Parent advisory committee for curriculum	3	3.5	1	1.8	4	2.8
District administrators mandate curriculum content	0	0.0	3	5.4	3	2.1
Curriculum guides written out of district are adopted	1	1.2	1	1.8	2	1.4
Other	2	2.3	0	0.0	2	1.4
Student advisory committee for curriculum	0	0.0	0	0.0	0	0.0
Totals	86	100.0	56	100.0	142	100.0

The adoption of texts by individual teachers was chosen by 50 per cent of the teachers, but only by 7.1 per cent of the administrators. The administrators' favorite was the periodic review of texts by a teacher committee (42.9 per cent). That item was selected by 17.4 per cent of the teachers.

Teachers then chose, in order, curriculum guides are written by teachers in the district (10.5 per cent), consultants work with teachers and/or administrators (8.1 per cent), and school curriculum committee (7.0 per cent). No other item received more than 3.5 per cent of the selections.

The administrators chose curriculum guides written in the district 19.6 per cent of the time. The school curriculum committee and use of consultants were chosen by 10.7 per cent. Administrator mandate of curriculum was selected by 5.4 per cent of the administrator respondents

The use of a student advisory committee for curriculum was not selected by any respondents, and administrative mandate of curriculum content was not selected by any teacher respondents.

A X^2 test of independence was calculated using the number responding to each item as listed in Table 13. Cells with less than five responses in them were combined.

Table 13

Contingency Table of Selected Curriculum Strategies that Provide the Most Satisfaction to Respondents

Strategies	Teachers	Administrators
Periodic review of textbooks by a teacher committee	43	4
School curriculum committee	15	24
Parent advisory committee for curriculum	9	11
Student advisory committee for curriculum	7	6
Individual teachers adopt their own textbooks	6	6
Curriculum guides are written outside the district and adopted	3	1
Curriculum guides are written by teachers inside the district	0	3
District administrators mandate curriculum content	1	1
Consultants work with teachers and/or administrators	2	0

Calculated X^2=4.70; Critical value=.71; Degrees of freedom=8;

Testing the null hypothesis that there is no significant difference between administrator and teacher responses yielded a $X^2=4.71$. For eight degrees of freedom, the critical value is 2.73 at $\alpha=.05$. Therefore, the null was rejected: There was a significant difference in strategies which provide administrator and teacher satisfaction.

Respondent comments relating to the strategies which provide satisfaction are listed here:

Teacher Comments

> Administrators dictate curriculum and teachers choose materials or use what is already there.
>
> The biggest hassle is being assured that each individual teacher is teaching, not fooling around wasting precious class time. How do you handle that?
>
> The elementary does review textbooks, but the high school leaves it up to individual teachers.
>
> I would like to have a curriculum committee to help with curriculum development so I could get more input from others.
>
> Since the administration pays little attention to the committee recommendations, we now have a problem; but under better circumstances we could function very well.

Administrator Comments

> I would not say our administrators mandate curriculum: however, they are very authoritative about seeing that a curriculum is established, rather than fifteen teachers having their own curriculum.

Time has allowed us the luxury of using consultants.

Teachers and administrators should work together.

EFFECTIVENESS OF CURRICULUM DEVELOPMENT STRATEGIES

Respondents were asked to rate how effective they perceived each item on a list of curriculum development strategies would be in their district. The five point scale used was: 1=very effective; 2=somewhat effective; 3=not effective; 4=harmful; 5=not sure. Average ratings for each item were computed as shown in Table 14.

Table 14

Perceived Effectiveness of Curriculum Development Strategies; Average Ratings on a Five Point Scale

Strategy	Teacher	Administrators	Total
Periodic review of textbooks by teacher committee	1.69	1.54	1.63
School curriculum committee	1.71	1.93	1.81
Curriculum guides written outside district are adopted	1.85	1.97	1.89
Consultants work with teachers and/or administrators	1.79	2.01	1.91
Individual teachers adopt their own textbooks	2.07	2.69	2.30
Student advisory committee for curriculum	2.36	2.66	2.48
Parent advisory committee for curriculum	2.18	2.57	2.51
Curriculum guides are written by teachers inside district	2.76	3.10	2.89
District administrators mandate curriculum content	3.01	2.76	2.90
Average of responses	2.16	2.35	2.24

Periodic review of textbooks by a teacher committee was perceived as the most effective strategy by both teachers (average rating 1.69) and administrators (average rating 1.54). The two groups of respondents both chose use of the school curriculum committee as the next most effective. The average rating given this strategy by teachers was 1.71 and by administrators 1.93.

Teacher respondents then rated the following strategies next in order: consultants work with teachers and/or administrators (1.79) and curriculum guides are written outside the district and adopted (1.85). Individual teachers adopt their own textbooks (2.07), parent advisory committee for curriculum (2.18), student advisory council for curriculum (2.36), and curriculum guides are written by teachers in the district (2.76) all averaged in the somewhat effective to not effective range. District administrators mandate curriculum change received an average rating of 3.01 from the teachers. The average of all teacher responses was 2.16.

Administrator average ratings were generally higher than those of the teachers. This indicated that they perceived the strategies as less effective than did the teachers. Their average response was 2.35. Curriculum guides written outside the district (1.97) and consultants working with teachers and/or administrators (2.09) were rated highest following the two previously mentioned strategies. With

the exception of curriculum guides written by teachers in the district (3.10), the other strategies rated between 2.57 and 2.76. These were parent advisory groups for curriculum (2.57), student advisory committee for curriculum (2.66), individual teachers adopt their own textbooks (2.69), and district administrators mandate curriculum content (2.76).

A X^2 test of independence was calculated using a contingency table of total response points given each item in the question. The results are displayed in Table 15.

Table 15

Contingency Table of Total Scores Pertaining to Perceived Effectiveness of Curriculum Development Practices

Strategy	Teachers	Administrators
Periodic review of textbooks by teacher committee	169	100
School curriculum committee	147	118
Curriculum guides written outside district adopted	146	122
Consultants work with teachers and/or administrators	152	115
Individual teachers adopt their own textbooks	182	159
Student advisory committee for curriculum	190	139
Parent advisory committee for curriculum	184	133
Curriculum guides written by teachers in district	221	161
District administrators mandate curriculum content	235	160

Calculated X^2=7.65; Critical value=2.73; Degrees of freedom=8;

The null hypothesis was that there was no significant difference in the responses of the two groups. The calculated X^2 was 7.65 which exceeded the critical value of 2.73 for eight degrees of freedom. Thus, the null hypothesis was rejected: There was a significant difference in teacher and administrator perceptions of which strategies would be most effective.

Representative comments from the respondents follow:

Teacher Comments

> Teachers are the most interested and involved, and would therefore be best for making curriculum decisions in this school.
>
> If a good curriculum guide were available, I'd like to see it. Our present superintendent has little knowledge or interest in curriculum--if the kids are quiet, and appear happy, he's happy.
>
> The new teachers to _____(I am one) tried to get a committee together to suggest changes, but met opposition to all our suggestions by the established teachers, so we gave up.
>
> Everyone involved with education should have some say in the curriculum choices, textbook selection, etc. I think we should do our best to offer classes which will be most useful to our students.
>
> More time for administration, departments, and consultants to formulate, discuss, and evaluate is needed.
>
> I think teachers should be given the freedom to adopt their own texts with input from a curriculum committee.
>
> I seriously feel that the teacher working with the child is the most effective.

Up in this [geographical] location, I feel that many teachers could use curriculum help.

Administrator Comments

Teachers should be interested enough to develop their own curriculum. This is done with approval of administration.

Some impact on what curriculum is and how it affects accreditation, etc., needs to be made on local boards.

The most effective method is by involving others on input. Working together is more important than having administrators dictate content.

We use shared decision making.

Teacher turnover makes writing of guides ineffective.

BARRIERS TO CURRICULUM DEVELOPMENT

The final items in the questionnaire dealt with concern caused by barriers to curriculum development. The respondents were asked to rate each item listed according to a four point scale: 1=of very high concern; 2=of some concern; 3=of no concern; 4=not sure. An average rating of each item was compiled and summarized in Table 16.

Table 16

Degree of Concern Perceived by Teachers and Administrators Toward Various Curriculum Barriers - Average Responses to a Four Point Scale

Barriers	Teacher	Administrator	Total
Inadequate time for teachers	1.74	1.92	1.81
Inadequate time for curriculum development	1.82	2.08	1.93
Inadequate resources to support change	1.80	2.24	1.98
Inadequate time for administrators	2.11	1.98	2.06
Inadequate information on curriculum trends	1.95	2.30	2.08
Inadequate expertise within the school district	1.99	2.26	2.10
Curriculum development is not a high priority in my district	2.02	2.47	2.20
Lack of leadership in the school district	2.10	2.67	2.33
Community too conservative	2.22	2.55	2.36
School board too conservative	2.24	2.61	2.39
There is little or no interest in changing	2.42	2.48	2.45
Students do not support change	2.64	2.66	2.65
Average of all responses	2.08	2.34	2.03

Key: 1=very high concern; 2=of some concern; 3=of no concern; 4=not sure;

Inadequate time for teachers was of highest concern to both teachers (1.74) and administrators (1.92). This concern was followed by inadequate funds for curriculum development with an average response of 1.93.

Teachers rated inadequate resources to support change (1.80), inadequate information on curriculum trends (1.95), and inadequate expertise within the school district (1.99) as items of at least some concern.

The items rated by teachers as being of some concern were: curriculum development is not a high priority item in my school district (2.02), lack of leadership in the school district (2.10), inadequate time for administrators (2.11), the community is too conservative (2.22), the school board is too conservative (2.24), and there is little or no interest in changing (2.42).

Administrator respondents generally rated the items higher, or of less concern, than did the teachers. The only item other than inadequate time for teachers with an average of less than 2.0 was inadequate time for administrators (1.98). Inadequate funds for curriculum development (2.08), inadequate resources to support change (2.24), inadequate expertise within the school district (2.26), inadequate information on school trends (2.30), curriculum development is not a high priority in my school district (2.47), and there is

little or no interest in changing (2.48) were rated by administrators as being of at least some concern.

The items rated as being of least concern to administrators were the community is too conservative (2.55), the school board is too conservative (2.61), students do not support change (2.66), and lack of leadership in the district (2.67).

The teacher respondents' average rating was 2.08. The administrators' average rating was 2.34.

Although a cursory glance seemed to indicate a difference between teacher and administrator responses, a X^2 test of independence was calculated to determine if there was, in fact, a statistically significant difference. This was done by constructing a contingency table using total response points given each item in the question. The null hypothesis was that there was no significant difference in the responses of the two groups. The calculated X^2 was 18.86, which exceeded the critical value of 4.58 for eleven degrees of freedom. Thus, the null hypothesis was rejected: There was a significant difference in teacher and administrator concerns about curriculum development. These findings are summarized in Table 17.

Table 17

Contingency Table of Total Scores Pertaining to Concerns about Selected Barriers to Curriculum Development

Barriers	Teachers	Administrators
Inadequate time for teachers	174	127
Inadequate funds for curriculum development	160	133
Inadequate resources to support change	164	139
Inadequate time for administrators	196	129
Inadequate information on curriculum trends	185	145
Inadequate expertise within the school district	181	138
Curriculum development is not a high priority in my school district	182	143
Lack of leadership in the school district	187	160
Community is too conservative	135	158
School board is too conservative	204	159
There is little or no interest in changing	218	154
Students do not support change	214	149

Calculated X^2=18.86; Critical value=4.58; Degrees of freedom=11;

A related question asked the respondents to select the one item from the previous listing that they perceived to be the greatest barrier to curriculum change. Every item was listed as the greatest barrier by at least two teacher respondents. Every item was selected by at least three administrator respondents, except lack of leadership in the district, which, not surprisingly, was not selected by a single administrator. This was considered a concern by 11.2 per cent of the teacher respondents.

Eight of the items were selected with approximately the same frequency by teacher respondents. These were led by inadequate time for teachers and inadequate funds for curriculum development, each with 13.3 per cent of the response, followed by inadequate expertise in the school district and lack of leadership in the district, each with 11.2 per cent. The next four items chosen were: inadequate resources to support change (10.2 per cent), inadequate information on curriculum trends (9.2 per cent), too little interest in changing (8.2 per cent) and curriculum development is not a high priority in my district (8.2 per cent). Those items chosen by less than five teachers included the community is too conservative (3.1 per cent), inadequate time for administrators (2.0 per cent), and students do not support change (2.0 per cent). Refer to Table 18 for a summary of this data.

Table 18

Greatest Barriers to Curriculum Change

Barriers	Teachers		Administrators		Total	
	#	%	#	%	#	%
Inadequate time for teachers	13	13.3	16	22.2	29	17.1
Inadequate funds for curriculum development	13	13.3	9	12.5	22	12.9
Inadequate expertise within school district	11	11.2	5	6.9	16	9.4
Inadequate resources to support change	10	10.2	4	5.6	14	8.2
Curriculum development not high priority in district	8	8.2	6	8.3	14	8.2
Inadequate information on curriculum trends	9	9.2	4	5.6	13	7.6
Little or no interest in changing	8	8.2	4	5.6	12	7.1
Lack of leadership in school district	11	11.2	0	0.0	11	6.5
Inadequate time for administrators	2	2.0	8	11.1	10	5.9
Community too conservative	4	4.1	5	6.9	9	5.4
School board too conservative	3	3.1	5	6.9	8	4.7
Students do not support change	2	2.0	3	4.2	5	2.9

Inadequate time for teachers was considered to be the greatest barrier by 22.2 per cent of the administrators. This item was followed by inadequate funds for curriculum development (12.5 per cent), inadequate time for administrators (11.1 per cent), and curriculum development is not a high priority in my school district (8.3 per cent). Inadequate expertise within the school district, the community is too conservative, and school board is too conservative were each selected by 6.9 per cent of the administrators. These were followed by inadequate resources to support change within the district, inadequate information on curriculum trends, and there is little or no interest in changing. Each of these was chosen by 5.6 per cent of the administrators. The fact that students do not support change was of major concern to only 4.2 per cent of the administrators.

Representative comments about barriers to curriculum development follow:

Teacher Comments

> It depends on what curriculum change is implemented in this school district. It is very conservative as far as the community goes, and the students do not seem to support change.
>
> We seem to move carefully and are usually happy with our choices.

Administration controls curriculum without much teacher input.

We do have curriculum change often. Sometimes this is good, sometimes not. Because of the small size of the school, a class is held for only one student at times.

It seems that with only one or two teachers in most areas, each person does his/her own thing.

Each of us is concerned with his own area, but not too aware of what is really happening elsewhere.

Outside (not mandatory) input of new ideas is lacking in smaller schools.

I'm very interested in curriculum change, but hate to be put into a position where I'm a go-between apt to get flack about something I can't control. There's alot of tenured deadwood floating around in small schools.

Lack of money and lack of interest in providing more courses and more sequencing in existent courses.

Each teacher discusses changes with superintendent and is usually free to go ahead with them.

Generally we have the funds to make changes; however, these funds must be used carefully, because too many times the administrators have different priorities than the committees.

Is it necessary to expend the time, energy, and resources if present programs are working effectively? In the last fifteen years there has been too much change just to show change in education.

Our whole concept here is the dollar sign. Education has taken a back seat to money, so any change which costs money is not good.

Who wants change? Is change needed?

Administrator is too conservative to change.

Administrator Comments

Perhaps ignorance is a better word than conservative.

Adequate time to even schedule meetings is unavailable.

Administrators are getting new jobs every year. It is going to have to end sometime.

I don't feel we have any barriers to curriculum change. Teachers change as they wish.

Curriculum is of no concern to anyone. Everyone is happy with what they have.

The above question does not, in my opinion, offer any barriers. Most are nothing more than a cop-out. If there is a will, there is a way.

Inadequate information on curriculum trends.

Budget is always short.

SUMMARY

The data in this report came from Fall Accreditation Reports, accreditation letters sent to schools by the Office of Public Instruction, and responses to a mailed questionniare sent to all administrators and a sample of teachers in the population school districts.

The Fall Accreditation Reports for the academic years 1977 and 1978 were reviewed. These self-reports showed that 22 per cent listed innovations on fall reports. Only two schools reported curriculum

related deviations. Five of the schools received on-site visitations and all were cited for various deviations. None of the deviations were for specific violations of a curriculum development standard because these standards were not included in the visitation checklist.

A questionnaire item asked respondents to check curriculum development strategies used in their school districts. The adoption of textbooks by individual teachers was used most widely. This was followed by implementation of changes to meet state accreditation standards, periodic review of textbooks by a teacher committee, and adoption of a basal text. The student advisory committee was selected least often.

Respondents were asked to estimate the number of school days or their equivalent spent by them on curriculum development during the 1977-78 school term. About one-third of the respondents spent between two and four school days (35.3 per cent). More than one-fifth (22.5 per cent) spent one school day and 16.8 per cent spent less than one school day on curriculum development. Only 5.2 per cent said they spent no time and 8.1 per cent spent between five and seven school days. More than seven days were spent by 12.1 per cent of the respondents. When administrator and teacher responses were compared using a X^2 test to determine if there was a difference in the two groups, it was found that the two groups did spend differing amounts of time on curriculum development.

When asked what types of curriculum development assistance they desired, both groups of respondents selected access to an updated library of curriculum materials as their highest priority. Administrators followed this with a desire for instruction in curriculum development methods, more support for curriculum development from teachers, and evaluation by persons outside the district. Teachers felt the greatest need for more knowledge of national and state trends in their field, instruction in curriculum development strategies, more funds for curriculum development, and released time during the school day. A X^2 test of independence on the two groups' responses to this item indicated that administrators and teachers desired different types of curriculum development assistance.

The classroom teacher and the administrators were ranked by respondents as having a great deal of influence on the curriculum. These were followed by state accreditation standards, the back to basics movement, state legislation, and the school board, in that order. Visitation by the state office, colleges, formal school advisory groups, businessmen, and churches were rated as having very little influence.

A related questionnaire item asked for the designation of influences having the most and least influence on the curriculum.

The classroom teacher was chosen as the most influential factor in school curriculum. Administrators were a close second, and no other item was selected by more than 6 per cent of the respondents. Churches, businessmen, and neighboring schools were selected as least influential by the respondents.

Respondents rated their satisfaction with various curriculum development strategies. Administrators said that review of textbooks by teacher committee, curriculum guides written by teachers in the district, and the school curriculum committee provide the most satisfaction. Student advisory committees and administrator mandating of curriculum were least satisfactory. Teachers also preferred review of textbooks by teacher committee and the adoption of texts by individual teachers. Least satisfactory strategies for teachers were also administrator mandate and student advisory committees. A statistical test indicated a significant difference in teacher and administrator responses.

When asked to select the one strategy most satisfactory to them, teachers chose adoption of texts by individual teachers most often, while administrators preferred review of texts by a teacher committee. There was a statistical difference in administrator and teacher responses to this item.

The respondents were asked to rate how effective each of a

list of curriculum development strategies would be in their district. The strategy perceived as most effective by teachers and administrators was periodic review of textbooks by a teacher committee. This was followed by the use of a school curriculum committee. Teachers then chose consultants working in the district, adoption of curriculum guides written outside the district, and individual teachers adopt their own textbooks. Administrators also selected adoption of curriculum guides written outside the district, and use of consultants. There was a significant difference found between administrator and teacher perceptions of effectiveness.

The final section of the questionnaire asked respondents to rate the degree of concern they had toward each item in a list of barriers to curriculum development. Inadequate time for teachers was the major concern of both groups of respondents. This was followed by inadequate resources to support change, inadequate funds for curriculum development, and inadequate time for administrators. All items on the list were of some concern or of very high concern to many respondents. A statistical comparison of teacher and administrator responses showed a significant difference in the two groups.

A related question which asked the respondents to select the greatest barrier to curriculum development yielded similar results,

with inadequate time for teachers, inadequate funds, inadequate expertise, inadequate resources, and lack of leadership leading the teacher list. Inadequate teacher and administrator time and inadequate funds led the administrator list.

Chapter V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter summarizes the rationale, methodology, and data of this study. Following the summary, some specific conclusions are presented. Finally, recommendations for facilitation of curriculum development in small schools are made. A set of guidelines and suggestions for further study are included.

SUMMARY

The mid 1970's was a time of change and the changes occurring at that time required a dynamic educational system to accommodate them. The focal point of this change in the schools was the curriculum.

Small Montana school systems, by their very nature, seemed on the surface to fit the stereotypes found in the literature. Such schools were characterized as being deficient in many areas and did not seem to provide the environment for change in curriculum required by the changing society of the time.

This study was conducted to determine the curriculum development processes in selected small Montana school systems and to compare administrator and teacher perceptions of the processes used.

The needs for the study were for a determination of whether or

not the literature stereotype fit the population schools. Identification and assessment of curriculum development processes in use was not available prior to the study. An evaluation of the effectiveness of accreditation standards concerning curriculum development was needed.

The study involved the use of a mailed survey to a sample of teachers and all administrators of sixty-four small Montana school districts (K-12). The survey was supplemented by a review of Fall Accreditation Reports for the period 1977-1978 submitted to the Office of Public Instruction. Data collected was presented in tabular and narrative form to facilitate use.

Review of Literature

The review of literature discussed four main topics: (1) Characteristics of Small and Rural Schools, (2) Characteristics of Small School Curriculum, (3) Small School Improvement Projects, and (4) Change Theory. The purpose of the review was to examine current thoughts and research on smaller schools with a particular emphasis on curriculum development in these schools.

Characteristics of small and rural schools. This section reviewed literature definitions, statistics, quality, strengths, and weaknesses of small schools. Various definitions of small schools

were presented with a Montana study by Barnes (1948) using 150 as the upper limit of enrollment. A study by Broady and Broady (1974) suggested more than one teacher per grade, but no more than two teachers per grade in secondary schools.

A large body of literature discussing small school quality and comparing it to large schools was available. Most often, large school-small school comparisons favored large schools.

Characteristics of small school curriculum. The small school curriculum had been viewed as more limited than that of urban schools. Part of the problem had been the emulation of urban practices. This was strengthened by a Montana study indicating that large and small school teachers subscribed to the same curriculum ideals (Hertz, 1972).

Small school improvement projects. Six major adaptations that improved small schools were cited by Sturges (1974). These included development of shared services, addition of courses using new technology, flexible scheduling, development of empathy for the learner, development of community relationships for problem solving, and maximum utilization of resources. The three major modes of delivery of these adaptations were outside agencies, the schools themselves developing proposals, and the regional education

laboratories.

It was found that the most successful small school improvements required community basis, that few innovations were directly transferrable between schools, and that unique small school practices must be developed rather than adapted from successful large school practices.

Change theory. Change theory was studied to determine how and why organizations accept or reject change, and to amplify some of the intricacies of curriculum development.

Several models of change had evolved, essentially from the Lewin model. Rogers (1962) postulated a five step process: (1) awareness, (2) interest, (3) evaluation, (4) trial, and (5) adoption. The Guba-Clark model (1967) included eight steps: (1) research, (2) invention, (3) design, (4) dissemination, (5) demonstration, (6) trial, (7) installation, and (8) institutionalization. The Havelock (1973) model concentrated very heavily upon the function of the change agent. This model included a six step process: (1) building a relationship, (2) diagnosis, (3) resource acquisition, (4) choosing a solution, (5) gaining acceptance for the solution, and (6) stabilization and self-renewal. Each step in the model required a high degree of understanding and skill on the part of the change agent.

Finally, the growing body of change axioms was reviewed. This literature consisted of listings of conclusions which specifically dealt with methodology for the change agent.

Procedures

This study was conducted as an investigation to ascertain the status of school curriculum development practices in smaller Montana school districts. The population of this study was the sixty-four third class school districts located throughout Montana that offered K-12 or 1-12 programs. These districts, by statutory definition, had populations not exceeding one thousand.

Data collection in this study utilized a review of Fall Accreditation Reports submitted to the Office of Public Instruction by population school districts for the years 1977 and 1978, a review of accreditation status letters sent to the school districts by the Office of Public Instruction for the years 1972-1978, and a mailed survey sent to all administrators in the population schools and to a sample of teachers in those schools.

The Fall Accreditation Reports for each district were reviewed to determine the number and type of innovative curriculum practices adopted as reported by the school districts, and to note if deviations from the Standards for Accreditation of Montana Schools (1976) were reported by the districts.

The accreditation letters were reviewed to determine the cited deviations of the school districts from the Standards for Accreditation of Montana Schools (1976), upon which the accreditation was based.

A mailed survey was sent to all population school administrators and to a sample of teachers. The questionnaire was developed by the researcher after a review of the literature. It was validated by using a panel of expert reviewers and tested for reliability by using the test-retest method. The teacher sample was selected on the basis of a stratification utilizing teacher experience in their respective districts (beginning, experienced non-tenured, and tenured) and grade level of assignment (elementary, secondary, and dual assignment). The distribution of the returns was tested against the total group of teachers using a X^2 test of goodness of fit to determine representativeness of the returns. The null hypothesis that there was no significant difference in the distributions was accepted.

The data collected in this study was arranged in tables showing raw counts and percentages. Free response data and representative comment were presented in narrative form. Analysis of the data was through an interpretation of the tables presented for the questions not addressed by statistical hypotheses. The

statistical hypotheses were analyzed using the X^2 test of independence ($\alpha = .05$) on contingency tables constructed using response frequencies from the administrator and teacher questionnaire returns.

CONCLUSIONS

This section presents a summary of the data collected by the Fall Accreditation Reports and each part of the questionnaire. Following the summary of data in each section, the specific question of the study to be answered by that part of the questionnaire will be answered and appropriate conclusions will be stated.

Fall Accreditation Reports

The review of Fall Accreditation Reports indicated that the accreditation process paid little attention to development of curriculum. There was no language in the standards that required more than cursory review of curriculum and the data indicated that when asked to state deviations from applicable standards, respondents almost never reported such deviations. Many unreported deviations in other areas were discovered by state office visitations. This was not the case with standards applicable to curriculum development because the visitation checklists did not mention them.

Some of the schools in the population reported outstanding or innovative practices. These practices were largely unreported

and unshared, and there was no provision at the time of the study to obtain the information except by reviewing the reports.

Two conclusions emerged concerning the process of accreditation: (1) curriculum development was very lightly regarded by the standards, and (2) self-reporting was not a very valid process when gauged by state office visitations. The impressive list of innovations and outstanding practices indicated that population schools said they were providing many unique approaches to meeting their curriculum problems. None were verified, however.

Strategies Used in Curriculum Development

The question answered by this part of the instrument was: What are current curriculum development practices as reported by teachers and administrators?

Every strategy listed in the questionnaire was used by at least a few of the respondents. Predominantly, the strategies most widely reported as being in use were textbook oriented, and the comments of many respondents mentioned selection of textbooks synonymously with curriculum development. The meeting of accreditation standards was also an important strategy. Input from parents, students, consultants, and curriculum guides written outside the district were mentioned considerably less often than other strategies.

Although it was not universal, curriculum development in

many schools consisted of the review and adoption of textbooks. This took various forms: individual teacher selection, teacher committee selection, administrator selection, or a combination. The net result was the same: that is, the textbooks became the curriculum.

From the data, it was concluded that local professionals controlled both textbook selection and efforts to comply with accreditation standards with little input from other local sources or those outside the district.

Time Spent on Curriculum Development

The questionnaire item was designed to answer the following questions: How much time did administrators and teachers report they spent developing and evaluating the curriculum? How did the times for the two groups compare?

Reported time spent on curriculum development tasks ranged from zero days to more than seven days. Three-fourths of the respondents said they spent four days or less. Forty per cent spent one day or less.

The null hypothesis that there was no significant difference in the amount of time teachers and administrators spent in curriculum development activities was tested using a X^2 test of independence. The null was rejected (α=.05), and it was concluded that there was

a significant difference in the time spent. Further, the pattern of data enabled the conclusion that administrators spent more time than did teachers. It was also concluded that for many respondents, the time spent on curriculum development was minimal.

Curriculum Development Assistance Desired

The questions answered by this part of the study were: What curriculum development assistance was desired by teachers and administrators? How did the desires of the two groups compare?

Both teachers and administrators felt that more information about curriculum materials, methods and strategies, and trends was their most pressing need, although teachers felt this need more strongly than did administrators. Evaluations by persons from outside the district and more teacher support were also desired, but more so by administrators. Only a small percentage of either group felt a need for no assistance.

The null hypothesis that there was no difference in the curriculum development assistance desired by teachers and administrators was tested using a X^2 test of independence. The null was rejected ($\alpha=.05$), and it was concluded that there was a significant difference in the desires of the two groups. Teachers tended to favor the suggested items of assistance much more than did the administrators. It was also concluded from the data that

both groups desired additional information and/or feedback on their efforts.

Influences on Curriculum

This questionnaire item answered the following question: What forces provided the impetus for curriculum change in the population school districts?

The professional staff perceived itself as the greatest influence on curriculum. State accreditation standards were also considered very important. In general, informal influences such as the back to basics movement and national trends, as well as formal influences, both within and without the school, were of at least some influence.

Of lesser influence were informal pressure institutions, such as colleges, parents, students, businessmen, and churches. Usually the teachers viewed all the listed influences as more influential than did the administrators, although in selecting some of the formal influences (e.g. school board and legislature) the administrators attributed them with more influence than did teachers.

It was concluded that, while there were many influences on a school's curriculum, the most pervasive influences were the teachers and administrators in the school, and the state accreditation standards.

Satisfaction with Curriculum Development Strategies

The questions related to this questionnaire item were: Which curriculum development processes generated the greatest administrator and teacher satisfaction? How do the two groups compare?

The strategies which were the most satisfactory to teacher respondents were those that dealt with textbook adoption. Those which provided the most administrator satisfaction were also textbook oriented or involved committees.

The data pointed out that teachers preferred individual autonomy while administrators preferred committees. There was less teacher satisfaction with administrator mandates, adoption of curriculum guides from outside the district, and advisory committees than with those strategies emphasizing teacher expertise.

In order to compare teacher and administrator responses, a X^2 test of independence was made on the null hypothesis that there was no significant difference in the curriculum development processes that generate greatest teacher and administrator satisfaction. The null hypothesis was rejected (α=.05), and it was concluded that there was a significant difference in the responses of the two groups. This difference was manifested in a strong teacher desire for assistance and administrator preference for teacher based strategies.

It was also concluded that textbook adoption was the strategy most satisfactory to most respondents.

Effectiveness of Curriculum Development Strategies

The questions related to this part of the study were: Which curriculum development processes are perceived by teachers and administrators as being most effective? How do the two groups compare?

The periodic review of texts by a teacher committee was perceived as the most effective curriculum development strategy. This was followed by the use of a school curriculum committee, use of guides written outside the district, and use of consultants. These strategies all involved sharing of ideas and, to a certain extent, less actual work than the other strategies named.

This data did not correlate with actual usage reported by the respondents. For example, use of consultants and adoption of curriculum guides written outside the district were each utilized by less than 8 per cent of the respondents. This may have been due to poor availability of both guides and consultants.

A comparison of teacher and administrator responses was made using a X^2 test of independence. The null hypothesis that there was no significant difference in the processes that are perceived by teachers and administrators as being most effective was rejected

(α=.05). It was concluded that there was a difference in the responses. Teachers tended to view most of the strategies as being more effective than did administrators. It was also concluded that perceived effectiveness and actual utilization did not always coincide.

Barriers to Curriculum Development

The questions related to this questionnaire item were: What are the major administrator and teacher concerns about curriculum development? Are there noticeable differences between administrator and teacher concerns?

In general, teachers perceived the various listed influences as larger barriers than did administrators. Teachers rated time for themselves, funds, resources, inadequate information, and expertise as the chief barriers. Administrators felt time for both teachers and administrators was a major concern.

The comparison of teacher and administrator concerns was made by testing the null hypothesis that there was no significant difference between teacher and administrator concerns. The null hypothesis was rejected (α=.05), and it was concluded that there was a difference. The data indicated a tendency for teachers to show more concern about various barriers to curriculum development than did administrators.

General Conclusions

The following general conclusions were drawn from the findings of this study:

1. Teachers and administrators differed to some degree in every aspect of curriculum development investigated by this study. An improvement in communication and perceptions between teachers and administrators seemed to be in order.

2. For the most part, curriculum development seemed to be viewed quite narrowly by the respondents, i.e. as being primarily textbook related.

3. Teachers tended to feel that barriers to curriculum development were more of a hindrance to change than did administrators. They also seemed to understand the various influences on curriculum in a different (but not necessarily less accurate) way, as well.

4. There seemed to be less contentment with the status quo felt by teachers than by administrators.

5. The development of curriculum seemed to take place without much regard for change theory as presented in the review of literature.

RECOMMENDATIONS

Accreditation Process

It is recommended that some changes be made in the accreditation process concerning curriculum development. Although the writer realizes the consternation caused by more regulations, means should be explored to specifically mention curriculum development responsibilities in the standards. The process should provide specific responses rather than reporting only when there is a deviation. More visitations to validate self-reports should also be done. The visitation checklist should refer to curriculum development standards.

Because the accreditation process collected information about innovative and outstanding practices which was not disseminated to other schools, accreditation consultants in the state office should be delegated the responsibility to validate, compile, and disseminate a list of these practices to all schools of similar size.

Curriculum Development Strategies in Use

There were few textbooks written specifically for the small, rural Montana school. Therefore, it is desired that the curriculum become less tied to the textbook by training teachers and administrators in the techniques of developing course goals,

objectives, and student expectancies. Preferably, this would be pre-service or in-service training.

If curriculum development is to consist of selecting text materials to be the curriculum, then better information about textbooks must be made available. Often, a school has little contact with textbook authors or instruction in the optimum use of the series. If the textbook is the curriculum, then more information should be made available.

Time Spent on Curriculum Development

There is some evidence from the study that only rarely is curriculum development time specifically designated or specific responsibility for curriculum development assigned to any one or more individuals. It is suggested that schools specifically define needs to be met and tasks to be performed. Scheduled times and designation of responsibility for curriculum work should be implemented. Finally, because administrators and teachers seemed to play differing roles which are not always in harmony with each other, they should work together to determine and achieve common goals.

Curriculum Development Assistance Desired

Administrator and teacher desires were different. Therefore, administrators should take the initiative to ascertain teacher desires

and make their own desires known. Care should be taken that neither group assume the other's needs are the same.

Information needs to be provided both groups. Ways should be explored to provide access to curriculum materials on a regular basis. This could be done by collections in the schools or by utilizing resources such as the Science and Mathematics Resource Center at Montana State University. Methods and strategies for curriculum development should be made available both in pre-service and in-service courses for both teachers and administrators. The emphasis in such courses should be on doing curriculum development, rather than studying the various curricula. Finally, although they are further down the list of desires, feedback in the form of outside evaluations and more time and funds to buy it should be provided to facilitate curriculum development.

Influences on the Curriculum

The professional staff was the primary influence on curriculum; therefore, it is recommended that the training of staff in curriculum development be maximized. This can be through professional organizations, seminars, use of periodicals, and instruction by consultants.

In order to minimize reliance on professional staff opinion, and to create a more broad based curriculum, wider use of outside resource agencies and broader formal participation by the community is recommended. More schools could set up advisory groups and make more use of university and Office of Public Instruction resources. Small schools are often hesitant to go outside for help because of possible costs involved, and should budget nominal amounts to cover those costs.

Satisfaction with Curriculum Development Strategies

The data stressed a difference in teacher and administrator satisfaction. Although the teachers desired autonomy, curriculum is the business of all aspects of the school community. Therefore, it is recommended that strategies emphasizing outside input and advisory committees be utilized, but that teacher expertise be used to evaluate and use the resultant recommendation.

Effectiveness of Curriculum Development Strategies

The difference between strategies that are perceived as effective and those actually being used should be examined in each school district. Once the discrepancy analysis is made, ways should be explored to use strategies perceived as effective, rather than those used because they are traditional or mandated by the administration. Teachers should be full partners in the selection

of strategies to be used in curriculum development.

Barriers to Curriculum Development

Teachers tended to see certain factors in curriculum development as greater barriers than did administrators. It is recommended that these concerns be addressed by all parties to the curriculum development process so that much of the inherent pessimism can be thwarted before it seriously blocks curriculum development efforts.

RECOMMENDED PRACTICES FOR CURRICULUM DEVELOPMENT

The data collected in this study suggested that there were certain practices in curriculum development which met with more favor and success than other practices. Some of these recommended practices are:

1. The person directing the development process should become aware of the basic theory and practices leading to successful change. Particular attention should be paid to those aspects of change which lead to successful adoption and incorporation of innovation into the organization.

2. If the school does not have a recent philosophy and objectives statement, one should be written. This statement should be the basis of curriculum development, although writing the

statement can be done concurrently with some of the other steps recommended here. The review of accreditation reports in this study indicated that such a statement was needed in the schools visited.

3. A needs assessment should be done in the district to determine the current state of the curriculum and compare it with what is desired. A needs assessment is difficult to do without proper planning and involvement of all segments of the school community. Care should be taken to determine what a needs assessment is to do in a particular school, and then design the procedures and instrumentation to meet those needs. It is important that a needs assessment be designed for a school, rather than using one from another school, so that the individual character of the school is incorporated into the needs assessment.

4. During the processes outlined here, it probably will be necessary to provide in-service training for teachers and administrators to enhance expertise in techniques of curriculum development, provide information about trends and materials, and broaden their view of curriculum development. It may be necessary or advisable to secure the services of a consultant or outside resource person to provide needed expertise.

5. Specific times for curriculum development activities should be set aside. Because released time may be too expensive for

a small district to purchase, the answer may be utilization of pupil-instruction related days or periodically shortening the instructional day to provide the time.

6. A specific time line and a schedule of tasks should be constructed. A specific delineation of responsibilities should be determined. Options for varying the procedures of the development process should be built into the system. By assigning responsibility for various tasks, it will be easier to keep curriculum development processes on task.

7. Available resources to use in curriculum development should be sought and acquired. These include persons and agencies both in the school district and outside.

8. In-service programs for staff should be held to provide information about available budget, accreditation standards, and laws and regulatory requirements. Teachers tend to view such curriculum influences from a different viewpoint than administrators and dialogue is necessary to provide opportunity to establish a common background for all involved. Implications for curriculum development should also be explored.

9. Formal involvement of a wide segment of the community through opinion surveys, advisory councils, committees, etc. is suggested. This is important as a means of identifying and

controlling various pressures and ascertaining community needs and desires. Use of community representatives is a prerequisite of a successful assessment.

10. Evaluation of the product and the process of curriculum development is important. Determination of what will be evaluated, who will evaluate, and criterion for success should be established before commencement of the project. Two modes of evaluation are the formative, which examines individual parts during the process, and the summative, which examines the entire project at its end or at predetermined points in the process. Both types of evaluation should be incorporated into the project design and commitment made to the results of the evaluation; i.e. decisions to continue, discontinue, or modify the project should depend on the evaluation system.

11. Provision should be made for a written record of all that is planned and completed. Staff continuity is a particular problem in small schools and record keeping for continuity is often haphazard or not done at all. A written curriculum should be one of the products of the process so that continuity can be better preserved.

12. Provisions should be made for periodically beginning the curriculum development process with a needs assessment. A pitfall of curriculum development is to complete a project and assume it is finished. Planning for recycling or providing for a continuous needs

assessment should be made.

13. From the initiation of any project, the decision-making procedure should be designed to fit the philosophy of the participants and the needs of the school. Because of the small groups involved, it is suggested that concensus be the mode of decision making, whereby those charged with implementing a decision at least agree not to sabotage the implementation for a certain trial period. This mode is suggested because it guarantees at least some degree of co-operation on the part of all participants.

RECOMMENDATIONS FOR FURTHER STUDY

This investigation was a status study of conditions in a select group of schools. As such, there are several remaining areas for further research of this topic. These include case studies of curriculum development techniques, controlled use of one or more of the techniques suggested in this study, and a study to determine the level of curriculum development expertise of teachers and administrators. Finally, this study and those suggested here could be applied to larger schools to determine if the schools studied here are, indeed, different by virtue of their being small.

REFERENCES CITED

REFERENCES CITED

Alpren, M. (1962). What curriculum developments are finding their way into practice? National Association of Secondary School Principals Bulletin. 46:272; 13-17.

Barnes, A.E. (1948). Educational Offerings in Montana High Schools 1945-47. (Unpublished M.A. thesis, Montana State University, Missoula; 107 p.)

Barnett, J.F. (1974). Reorganization Proposals for Improving Educational Opportunities, Services, and Efficiency of Operation in School Districts in the Lower Gallatin Valley. (Unpublished Ed.D. dissertation, Montana State University, Bozeman; 141 p.).

Bohrson, R.G. (April, 1963). The small high school--its strengths and limitations. National Association of Secondary School Principals Bulletin. 47:282; 106-119.

Brickell, H.M. (1961). Organizing New York State for Educational Change. New York State Education Department, Albany.

Broady, K.O. and Broady, L.P. (1974). Administration of Small Twelve Grade Schools. University of Nebraska, Lincoln. 195 p.

Brunetti, G. (1974). Playing the politics of change. English Journal. 63:7 12-13.

Carleton, L.J. (1966). The problem of the small high school in the Northwest Association of Secondary and Higher Schools. National Association of Secondary School Principals Bulletin. 50:307; 97-106.

Carlson, F.D. (1968). Instructional Problems of Small Washington High Schools. (Unpublished Ed.D. dissertation Washington State University, Pullman. 118 p.

Carlson, R.O. (1965). Adoption of Educational Innovations. Center for Advanced Study of Educational Administration, University of Oregon, Eugene.

Carlson, R.O. et al. (1965). Change Process in Public Schools. Center for Advanced Study of Educational Administration. University of Oregon, Eugene.

Conant, J.B. (1959). The American High School Today. McGraw-Hill, New York.

Conway, J.A., Jennings, R.E., and Milstein, M.M. (1974). Understanding Communities. Prentice-Hall. Englewood Cliffs, New Jersey.

Dawson, H. (1934). Satisfactory Local School Units. George Peabody College. 118 p.

Edington, E.D. (1976). Strengthening the Small Rural School. New Mexico State University, University Park. 63 p.

Ferguson, G.A. (1971). Statistical Analysis in Psychology and Education. McGraw-Hill, New York.

Foght, H.W. (1911). The American Rural School: Its Characteristics, Its Future, and Its Problems. McMillan, New York.

Ford, E.A. (1961). Rural Renaissance--Revitalizing Small High Schools. U.S. Department of Health, Education, and Welfare bulletin. No. 11; p.2.

Gardner, J.W. (1965). Self-Renewal: The Individual and the Innovative Society. Harper and Row, New York.

Gehlen, F.L. (1969). The Political Aspects of Small Town and Rural Schools. ERIC Clearinghouse on Rural Education and Small Schools. New Mexico State University, Las Cruces.

Geiser, R.L. (October, 1972). "I'd Like to Change Things, But...." Teacher. 25-31

Good, C.V. (1966). Essentials of Educational Research. Appleton-Century-Crofts, New York.

Guba, E. and Clark, D. (1967). An Examination of Potential Change Roles in Education. National Education Association, Washington, D.C. p.116.

Havelock, R.G. (1973). The Change Agent's Guide to Innovation in Education. Educational Technology Publication. Englewood Cliffs, New Jersey.

Heesacker, F.L. (January, 1971). The small school can be a good school. Education Digest. 36:5; 12-15.

Howard, R.L. (1975). A Model of a Program Plan and an Expanded Instructional Proposal for a Small Rural High School in Illinois That Will Provide an Accepted Program as Measured by Illinois State Guidelines. (Unpublished Ed.D. dissertation, Walden University, 126 p.).

Hughes, L.W. and Achilles, C.M. (May, 1971). The supervisor as a change agent. Educational Leadership. 28:8; 840-843.

Hull, R.E. (1974). A research and development adoption model. Educational Administration Quarterly. 10:3; 33-45.

Huysman, J.H.B.M. (1970). The effectiveness of the cognitive-style constraint in implementing operations research proposals. Management Science. 17:92-94.

Jackson, J.L. (1966). School Size and Program Quality in Southern High Schools. Center for Southern Education Studies. George Peabody College for Teachers, Nashville, Tennessee.

Kerlinger, F.N. (1973). Foundations of Behavioral Research (Second Ed.). Holt, Rhinehart, and Winston, New York.

Kimble, J.W., Cramer, G.L., and House, V.W. (April, 1976). Basic Quality of Secondary Education in Montana. Montana Agriculture Experiment Station, Montana State University bulletin, number 685.

Lewin, K. (1947). Frontiers in group dynamics. Human Relations. 1:2-38.

McClurkin, W.D. (1970). Rural Education in the United States. ERIC Clearinghouse of Rural Education and Small Schools. New Mexico State University, Las Cruces.

Montana Educational Directory. (1977). Office of the Superintendent of Public Instruction. Helena, MT.

Morgan, J.S. (1972). Managing Change. McGraw-Hill Book Co. New York.

MSCSA Salary Survey. (1976). Montana State Council of School Administrators, Helena, MT. (mimeographed).

Neagley, R.L. and Evans, N.D. (1967). Handbook for Effective Curriculum Development. Prentice-Hall. Englewood Cliffs, New Jersey.

North Central Association of Colleges and Secondary Schools. (1974). The Small School: Returning to the Human Dimension. A Report on the Small Schools Project of the Committee on Small Schools. Chicago, Ill. 49 p.

Oliver, A.J. (February, 1966). Curriculum improvement and the smaller secondary school. National Association of Secondary School Principals Bulletin. 36-48.

Orlosky, D. and Smith, B.O. (March, 1972). Educational change; Its origins and characteristics. Phi Delta Kappan. 53:7; 412-414.

Owens, R.G. and Steinhoff, C.R. (1976). Administering Change in Schools. Prentice-Hall, Inc. Englewood Cliffs, New Jersey.

Peters, R.O. (1978). Instructional Program Development in a Rural Experimental School System. (Paper presented at Spring conference of the New England Educational Research Organization, Sturbridge, MA. 21 p.)

Revised Codes of Montana aka School Laws of Montana (1947). Office of the Superintendent of Public Instruction. Helena, MT.

Rogers, E.M. (1962). Diffusion of Innovations. The Free Press. Glencoe, NY.

Rogers, E.M. and Svenning, L. (1969). Changes in Small Schools. ERIC Clearinghouse on Rural Education and Small Schools, New Mexico State University, Las Cruces.

Sarason, S.B. (1971). The Culture of the School and the Problem of Change. Allyn and Bacon, Boston.

Sasser, C. (1975). What's wrong with rural schools? American School Board Journal. 162:2; 35-36.

Saylor, J.G. and Alexander, W.M. (1966). Curriculum Planning for Modern Schools. Holt, Rhinehart, and Winston. New York.

Schloss, S. and Hobson, C.J. (1956). Statistics of State School Systems in the U.S. Office of Education. Biennial Survey of Education in the United States, 1952-54. 2:Chapter 2.

Schoenholtz, J.B. (May, 1972). Small high schools--panacea or malignancy? Phi Delta Kappan. 53:9; 577-578.

Seyfert, W.C. (1937). School Size and School Efficiency. Harvard University Press. Boston.

Shaw, M.E. and Wright, J.M. (1967). Scales for the Measurement of Attitudes. McGraw-Hill, New York.

Sher, J.P. Ed. (1977). Education in Rural America--A Reassessment of Conventional Wisdom. Westview Press. Boulder, Colorado.

Small Schools Invitational Conference, Proceedings of a Small Schools Task Force. (1974). University of Tennessee, Knoxville. 210 p.

Standards for Accreditation of Montana Schools. (Third Ed.) (1976). Office of the Superintendent of Public Instruction. Helena, MT.

Sturges, A.W. (1974). The Small School: A Rediscovered Resource in American Education. (Paper prepared for the 79th Annual meeting of the North Central Association of Colleges and Secondary Schools. Chicago, Illinois. 7 p.).

Stutz, R.C. (Fall, 1967). Strategies for strengthening small schools. North Central Association Quarterly. 52:2; 196-199.

Sybouts, W. (October, 1970). Program development in rural schools. National Association of Secondary School Principals Bulletin. 54:348; 116-130.

Tye, K.A. (February, 1970). The principal as a change agent. The National Elementary Principal. 49:4; 41-51.

Tye, K.A. (May, 1972). The school principal: key man in educational change. National Association of Secondary School Principals Bulletin. 56:364; 77-84.

Vidich, A.J. and Bensman, J. (1958) Small Town in Mass Society. Doubleday and Co. (Anchor Books). Garden City, NY.

Voelker, S.W. and Ostenson, T.K. (1970). Rural-Urban Quality Differentials in North Dakota's Public School System. North Dakota State University, Fargo. 29 P.

Wilson, A.P. (1970). Educational Innovations in Rural America. ERIC Clearinghouse on Rural Education and Small Schools. New Mexico State University, Las Cruces, NM.

Wilson, R.G. (February, 1966). The regional accrediting associations and the smaller high school. National Association of Secondary School Principals Bulletin.

Zand, D.E. and Sorenson, R.E. (December, 1975). Theory of change and the effective use of management science. Administrative Science Quarterly. 20:4; 532-545.

Zaltman, G., Floria, D.H., and Sikorski, L.A. (1977). Dynamic Educational Change. The Free Press Division of Macmillan Publishing Co. Inc. New York.

APPENDICES

APPENDIX A

COVER LETTER

Box 28
Wibaux, Montana 59353
May 20, 1978

Dear Colleague:

I am conducting a study under the sponsorship of the College of Education Field Services Bureau at Montana State University that deals with curriculum development practices in small Montana Schools. An important part of the study is a mailed survey of carefully selected teachers and administrators to determine actual curriculum development practices in their schools. The results of this study form the basis of a needs assessment for a program to offer training in curriculum development to teachers and administrators in small schools.

As one of a relatively small group, your response to the enclosed questionnaire is vital to this study. Although I realize this is the busiest time of the year for most educators, I would appreciate it if you would take about fifteen minutes and complete the survey instrument as soon as you can and return it in the envelope provided.

The enclosed form is coded to help identify non-respondents for follow-up. Confidentiality of all replies will be maintained with no direct references being made to either schools or individuals in the final report.

A copy of the abstract of the study will be sent to you if you mark the final item in the questionnaire.

Thank you in advance for your speedy reply.

Sincerely,

James L. Kimmet

APPENDIX B

SURVEY QUESTIONNAIRE

I. Please check the items that most correctly describe you:

A. Job Description:
___Teacher
___Principal
___Superintendent

B. Grade Level:
___Elementary (K-6)
___Secondary (7-12)
___Both Elementary and Secondary (K-12)

C. Amount of experience you have had as a certified educator:
___This is my first year.
___I am experienced, but not tenured in this school.
___I am tenured in this school.

II. Please check the items that most correctly describe curriculum development in the school district in which you are now employed.

A. Which curriculum development strategies are used in the school district in which you are now employed? Please check all that are applicable.

__1. Periodic review of textbooks by a teacher committee
__2. My school has a curriculum committee
__3. My school has a parent advisory committee for curriculum
__4. My school has a student advisory committee for curriculum
__5. Individual teachers adopt their own textbooks
__6. Curriculum guides are written by teachers in the district
__7. Curriculum guides are written outside the district and adopted
__8. Administrators or school board mandate curriculum content
__9. Outside consultants work with teachers to develop curriculum
__10. A basal text is adopted and becomes the curriculum
__11. Curriculum changes are implemented to meet state accreditation standards.
__12. Other (specify)_____

Comment:

B. How much time will you spend this school year specifically devoted to developing and evaluating curriculum?

__1. No time is spent
__2. Less than one school day or its equivalent
__3. One (1) school day or its equivalent
__4. Between two (2) and four (4) school days or the equivalent
__5. Between five (5) and seven (7) school days or the equivalent
__6. More than seven (7) school days or the equivalent

Comment:

C. Check each type of curriculum development assistance you would like to have:

__1. Released time during the school day
__2. Access to an updated library of curriculum materials
__3. University consultants
__4. Instruction in curriculum development methods and strategies
__5. More knowledge of national and state trends in my field
__6. More assistance from Office of Public Instruction staff
__7. An evaluation of the curriculum in my school by persons from outside the district
__8. More administrator support for curriculum development
__9. More teacher support for curriculum development
__10. More funds for curriculum development
__11. No curriculum development assistance is desired
__12. Other (specify)_____

Comment:

III. Please circle the response number that best describes each item for you in each of the following questions:

A. For each of the following items, circle the response item 1-5 which best describes the degree of influence you think that item has on curriculum change in your school district:
1. Has a great deal of influence; 2. Has some influence;
3. Has very little influence; 4. Has no influence;
5. Not sure;

__1.	The administrator(s)	1	2	3	4	5
__2.	The classroom teacher	1	2	3	4	5
__3.	Students	1	2	3	4	5
__4.	School board	1	2	3	4	5
__5.	Parents	1	2	3	4	5
__6.	Businessmen in community	1	2	3	4	5
__7.	Churches in community	1	2	3	4	5
__8.	Local teacher organization	1	2	3	4	5
__9.	Formal school advisory groups	1	2	3	4	5
__10.	State accreditation standards	1	2	3	4	5
__11.	Regional (Northwest) Accreditation Standards	1	2	3	4	5
__12.	Colleges and universities	1	2	3	4	5
__13.	Visitations by staff from the state office	1	2	3	4	5
__14.	National educational trends	1	2	3	4	5
__15.	The back to basics movement	1	2	3	4	5
__16.	State legislation	1	2	3	4	5
__17.	Federal legislation	1	2	3	4	5
__18.	What neighboring schools are doing	1	2	3	4	5
__19.	Other (specify)_____	1	2	3	4	5

B. Check the one item above that has the most influence in curriculum development.

C. Circle the number of the one item that has the least influence in curriculum development.

Comment:

D. Rate, by circling the appropriate number 1-5, the degree of satisfaction that each of the listed curriculum development strategies gives you as a teacher or administrator: 1. Provides a great deal of satisfaction; 2. Provides some satisfaction; 3. Provides no satisfaction; 4. Results in negative feelings; 5. Is not used in my district.

__1.	Periodic review of textbooks by teacher committee	1	2	3	4	5
__2.	School curriculum committee	1	2	3	4	5
__3.	Parent advisory committee for curriculum	1	2	3	4	5
__4.	Student advisory committee for curriculum	1	2	3	4	5
__5.	Individual teachers adopt their own texts	1	2	3	4	5
__6.	Curriculum guides written outside the district are adopted	1	2	3	4	5
__7.	Curriculum guides are written by teachers in the district	1	2	3	4	5
__8.	District administrators mandate curriculum content	1	2	3	4	5
__9.	Consultants work with teachers and/or administrators	1	2	3	4	5
__10.	Other (specify)_____	1	2	3	4	5

E. Check the one item above that provides the most satisfaction.

Comment:

F. Rate, by circling the appropriate response number 1-5, how effective you perceive each of the following curriculum development strategies would be in your school district: 1. Very effective; 2. Somewhat effective; 3. Not effective; 4. Harmful; 5. Not sure;

1.	Periodic review of textbooks by a teacher committee	1	2	3	4	5
2.	School curriculum committee	1	2	3	4	5
3.	Parent advisory committee for curriculum	1	2	3	4	5
4.	Student advisory committee for curriculum	1	2	3	4	5
5.	Individual teachers adopt their own texts	1	2	3	4	5
6.	Curriculum guides written by teachers in the district	1	2	3	4	5

7. Curriculum guides are written outside the district and adopted	1	2	3	4	5
8. District administrators mandate curriculum content	1	2	3	4	5
9. Consultants work with teachers and/or administrators	1	2	3	4	5
10. Other (specify)_____	1	2	3	4	5

Comment:

G. Rate, by circling the appropriate response item 1-5, the following possible barriers to curriculum development according to how much of a concern each would be in your school district:
1. Of very high concern; 2. Of some concern; 3. Of no concern; 4. Not sure;

__1. Inadequate time for teachers	1	2	3	4
__2. Inadequate time for administrators	1	2	3	4
__3. Inadequate funds for curriculum development	1	2	3	4
__4. Inadequate expertise within the school district	1	2	3	4
__5. Inadequate resources to support change	1	2	3	4
__6. School board is too conservative	1	2	3	4
__7. Community is too conservative	1	2	3	4
__8. Inadequate information on curriculum trends	1	2	3	4
__9. Curriculum development is not a high priority in my school district	1	2	3	4
__10. Lack of leadership in the school district	1	2	3	4
__11. There is little or no interest in changing the curriculum on the part of the staff	1	2	3	4
__12. Students would not support curriculum change	1	2	3	4
__13. Other (specify)_____	1	2	3	4

H. Check the one item you feel is the greatest barrier to curriculum change in your school district.

Comment:

IV. _____I would like to receive a copy of the abstract of this study when it is completed.
(Questionnaire is coded for follow-up and to return results to respondents. All data will be confidential and not individually identified.)

Please send the completed form to:

James L. Kimmet
Box 28
Wibaux, Montana 59353

APPENDIX C

1. The survey questionnaire took me __ minutes to complete.

2. I thought all the questions were clearly stated and easy to understand.

_____yes
_____no

If you answer no, please indicate the question number(s) and the reason or reasons for the lack of clarity.

3. Were any of the questions offensive to you?
_____yes
_____no

If you answer yes, please indicate the question(s)._____

4. Were the response items listed appropriate for the questions asked? _____yes
_____no

If you answer no, please indicate the question(s) and the response item or items you felt were inappropriate._____

5. Were the directions easy to understand?
_____yes
_____no

Could you make any suggestions for improvement?
_____yes
_____no

If you answer yes, please specify:_____
_____.

6. In your opinion, are there any unnecessary questions on the instrument? _____yes
_____no

If you answer yes, please indicate the number(s) of the unnecessary question(s):_____.

7. Additional comments or suggestions:

APPENDIX D

LETTER TO CLERKS

March 24, 1978

Dear

I am writing a doctoral dissertation on curriculum development practices in small Montana schools. Part of the project, which is designed to help small school systems such as yours, requires a survey of teachers in selected third class school districts.

In order to do the survey, I need an accurate mailing list of your certificated staff and some additional information to help me select a survey sample.

Specifically, the information needed is (1) teacher's name, (2) mailing address, (3) whether he or she is full or part time, (4) whether he or she is assigned to secondary or elementary or both, and (5) the number of years the teacher has been in your school system. A sheet for listing this information for your staff is enclosed.

Your help in this study is very important. Please return the requested information as soon as possible. If there is a charge for this information, which will be used only in this study, please indicate it on the return.

Thank you for your help.

Sincerely,

James L. Kimmet

MONTANA STATE UNIVERSITY LIBRARIES
3 1762 10010962 6

D378
K572
cop.2